

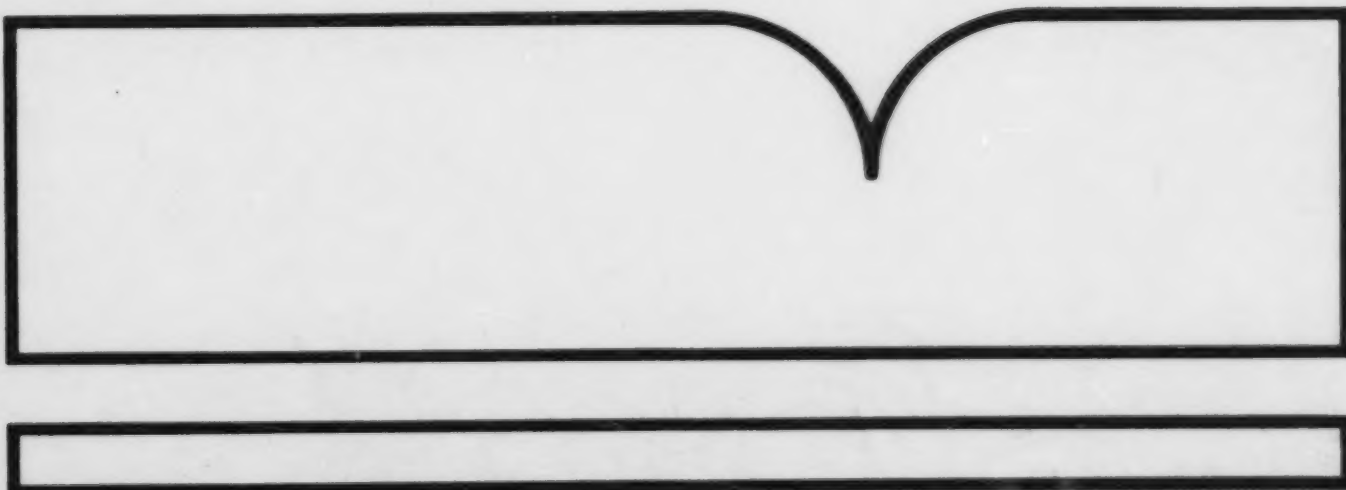
National Study of Hospitalized Pesticide
Poisonings, 1974-1976

Colorado State Univ.
Fort Collins

Prepared for

Environmental Protection Agency
Washington, DC

Apr 80



U.S. Department of Commerce
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The objective of the National Study of Hospital Admitted Pesticide Poisonings was to determine nationwide incidence rates for hospitalized acute pesticide poisoning cases among those persons admitted to generalcare hospitals during the years 1974 to 1976, and to compare the incidence rates obtained with those obtained in the National Study of Hospitalized Pesticide Poisonings covering the interval 1971-1973.

KEYWORDS: *Pesticides, *Toxic diseases, *Toxic substances,
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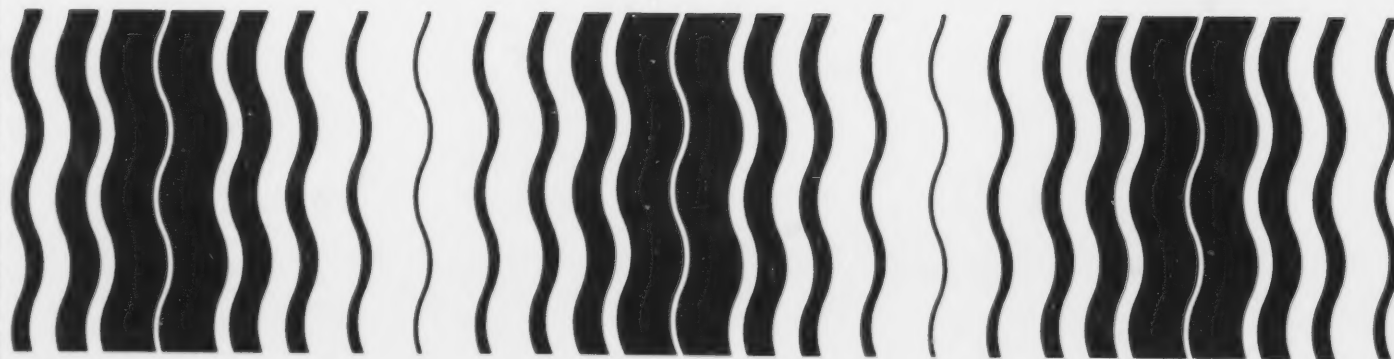
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Pesticide



National Study of Hospitalized Pesticide Poisonings 1974 - 1976



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SPRINGFIELD, VA 22161

NATIONAL STUDY OF HOSPITALIZED
PESTICIDE POISONINGS, 1974-1976

Final Report

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OBJECTIVE

The objective of the National Study of Hospital Admitted Pesticide Poisonings was to determine nationwide incidence rates for hospitalized acute pesticide poisoning cases among those persons admitted to general-care hospitals during the years 1974 to 1976, and to compare the incidence rates obtained with those obtained in the National Study of Hospitalized Pesticide Poisonings covering the interval 1971-1973 (1).

BACKGROUND

The use of pesticides throughout the United States continues to become increasingly widespread (2), and more people are being exposed to these potentially hazardous compounds. There is a growing concern that, along with increased pesticide use and exposure, the national incidence of pesticide-related morbidity and mortality may also be increasing.

Since all pesticides are toxic, exposure to these compounds through improper use or accident can lead to illness and even death. Acute or chronic exposure can occur by the oral, dermal, or respiratory routes. Examples of exposure are by means of intentional or accidental ingestion, occupational contamination, or through incidental exposure resulting from small amounts of pesticides in air, food, and water (3).

Morbidity and mortality associated with pesticide exposure may be influenced by a number of contributing factors such as the pesticide's toxicity, formulation, and its route of exposure, and the age, sex, health status, or other characteristics of the exposed individuals. Mortality estimates related to pesticide intoxications are usually more reliable than morbidity data. Previous pesticide mortality studies in the United States indicated that deaths due to pesticide intoxication have been reduced over the last two decades. A study based on U.S. vital statistics for the years

1946 to 1956 recorded that pesticides accounted for approximately 150 deaths annually, and that the death rate associated with all pesticides in the U.S. was about 1.0 per million population (3). A national study of U.S. deaths in 1961 demonstrated that 111 poisoning deaths were attributed to identifiable pesticides (4). More recent mortality studies have provided data which reveal a downward trend in the number of pesticide poisoning deaths. A review of 1969 U.S. deaths demonstrated that pesticides accounted for 87 deaths (5), and a similar study revealed that 61 deaths due to pesticide intoxication occurred in 1973, and 52 occurred in 1974 (6). Following the study on mortality from pesticides in the U.S. during 1973 and 1974, Hayes and Vaughn (6) concluded that the reduction in pesticide-caused deaths has been accompanied by a continuing reduction in poisonings involving children less than 10 years old and by a decrease in the proportion of pesticide deaths among places with populations greater than 2500.

Morbidity statistics for the U.S. are much less complete than the mortality data. The national study (1) for the period 1971-1973 and the recent national study for the period 1974-1976 were conducted to obtain more comprehensive pesticide morbidity indices for the total U.S. population. The National Clearing House for Poison Control Centers throughout the U.S. also compiles poisoning data that includes information on pesticide-related incidents. However, the majority of previous studies of pesticide-related morbidity have focused on selected geographic regions of the country. Such studies were conducted in Florida for 1956-1967 data (7), in New Orleans, Louisiana for 1965-1967 (8), in the Lower Rio Grand Valley of Texas from 1961-1969 (9, 10), in South Carolina from 1971-1973 (11), and in Allegheny County, Pennsylvania from 1972-1973 (12).

The Colorado Epidemiologic Pesticide Studies Center's study of hospitalized acute pesticide poisonings during the years 1971-1973 was completed

in 1975 (1). It was the first study to collect uniform national data for acute pesticide poisonings admitted to general-care hospitals in the United States. A stratified random sample of the 7000 general-care hospitals in the United States was used to estimate national incidence rates for pesticide-related morbidity and mortality. From the number of deaths observed in the study sample, it was estimated that 49, 92 and 54 deaths due to pesticide intoxication occurred in the United States during the years 1971, 1972, and 1973, respectively. These estimates indicated that with the exception of 1972, pesticide-related mortality is steadily decreasing with time. On the other hand, the study's morbidity estimates of 2596, 2921, and 2831 cases for the years 1971, 1972, and 1973, respectively, indicate an increase in hospitalized acute pesticide illness. Nationwide estimates of incidence rates were 8.2 cases per 100,000 hospital admissions in 1971, 8.8 in 1972, and 8.5 in 1973. Nonoccupational pesticide poisonings, excluding intentional poisonings, accounted for approximately half of the poisoning episodes; 1294, in 1971, 1725 in 1972, and 1446 in 1973. The number of hospitalized acute pesticide poisonings among children of ages of four years or less were estimated as 995, 1281, and 1001 for the years 1971, 1972, and 1973, respectively. Similarly, the rates of occupational pesticide poisonings did not increase in incidence, and they varied between 1.9 and 2.5 per 100,000 hospital admissions during 1971, 1972, and 1973.

Although data from the study of hospitalized acute pesticide poisonings during 1971 to 1973 has provided the first uniform and nationwide incidence estimates, there has not yet been a sufficient accumulation of data to determine the current pesticide-related illness trend in the United States. It will be necessary to acquire and analyze similar data for an extended time period in order to evaluate the validity of the incidence data and to determine the characteristics of pesticide poisoning trends.

SCOPE

This study extends the 1971-1973 study of hospitalized acute pesticide poisonings with data for the years 1974 through 1976. Previous estimates of pesticide poisoning incidence have focused on various geographic regions or have lacked uniformity in the identification, characterization, and reporting of pesticide poisonings. Consequently, there is a need to continue the development of a reliable assessment of the incidence of pesticide poisoning nationally.

The use of hospital-based data provides for the greatest uniformity and accuracy in identifying and studying cases, even though the actual incidence rate may be under-reported by this method. Thus, it will provide comparable data for analyzing and comparing trends during the six years of study.

METHODS

The objective of the study, as stated previously, was to develop nationwide incidence rates for hospitalized acute pesticide poisoning cases among those persons admitted to general-care hospitals. The sample population were patients in the approximately 7,000 general-care hospitals in the United States. A hospital is classified general care by the American Hospital Association (AHA) if the majority of its admissions are general medical and surgery cases (13).

In this study, hospitals were the primary sampling units. From a complete list of general-care hospitals in the United States a probability sample was selected according to the following design. Each hospital represented a cluster of admissions. Once a hospital was selected the entire cluster was observed in order to count the number of pesticide cases occurring within the cluster. To increase precision of the estimates, the population of general-care hospitals was stratified according to state and hospital size within each state. From this sampling frame the study was selected.

The stratification plan was similar to that used in the previous study of hospitalized pesticide poisonings. Hospitals within each state were ranked according to their total number of admissions for 1975 as reported by the American Hospital Association. They were then divided into n strata of approximately equal size, where n represents the number of hospitals to be selected from each state. The value of n varied since the number of sampled hospitals was proportional to the number of hospitals listed for each state. From each stratum within a state, one hospital was selected at random. The stratified sample design used for each state is illustrated by the sampling of hospitals in Nevada, as displayed in Figure 1. Although the

FIGURE 1

STRATIFICATION OF GENERAL-CARE HOSPITALS IN NEVADA. THE SAMPLED HOSPITALS ARE DESIGNATED IN BOXES ALONG WITH THE RESPECTIVE ADMISSIONS.

<u>STRATA</u>	<u>HOSPITAL</u>	<u>NUMBER OF ADMISSIONS</u>
I	1	207
	2	215
	3	458
	4	516
	5	793
	6	1,220
	7	1,260
II	8	1,294
	9	1,667
	10	1,973
	11	2,125
	12	2,291
	13	2,951
	14	3,260
III	15	4,255
	16	4,395
	17	6,260
	18	9,920
	19	11,919
	20	18,574
	21	20,018

probability of obtaining a given hospital under this plan is approximately equal to the probability of obtaining that hospital using simple random sampling, stratification ensures that the distribution of admissions during the sampled hospitals will be representative of the distribution of admissions among all hospitals in the population of general-care hospitals.

A more detailed discussion of stratified random sampling can be found in most texts on statistical sampling. Cochran notes, "If intelligently used, stratification nearly always results in a smaller variance for the mean or total than is given by a comparable simple random sample" (14). Furthermore, in the present study, precision was increased by stratification in view of the following conditions:

1. The population was composed of hospitals varying widely in size.
2. The principal variable to be measured was closely related to the size of the hospitals.
3. A good measure of size, namely, number of admissions, was available for setting up the strata.

Estimates of the incidence rate of hospitalized pesticide poisonings should take the sampling design into account. Of the many ways to estimate the incidence rate in stratified random sampling, two of the more natural estimators are the combined ratio estimate

$$\hat{Y}_C = \left(\frac{\sum_{h=1}^n \frac{N_h}{n_h} y_h}{\sum_{h=1}^n \frac{N_h}{n_h} x_h} \right) X$$

and the stratified ratio estimate

$$\hat{Y}_{ST} = \sum_{h=1}^n \frac{x_h}{x_h} y_h$$

Within a given state, $\hat{Y}_C$ and $\hat{Y}_{ST}$ are estimates of the total number of hospitalized poisonings, n is the number of admissions strata, and is the total admissions of all hospitals within the state. Within the h^{th} admissions stratum, N_h and X_h are, respectively, the number and total admissions of all hospitals, n_h and x_h are the number and total admissions of the sampled hospitals, and y_h is the number of observed hospitalized pesticide poisonings in the h^{th} admissions stratum.

Although the stratified ratio estimate does not require the assumption that the true incidence rate remains constant from stratum to stratum it is susceptible to bias if the sample size within each stratum is small. Since typically only one hospital was selected within each admissions stratum this problem of bias arises. A better estimate of the incidence rate would be obtained by using the combined ratio estimate $\hat{Y}_C$, which is less susceptible under these circumstances. However, because typically only one hospital within each admissions stratum was selected, the variance of $\hat{Y}_C$ cannot be directly estimated. Because the sampling plan renders the ratio N_h/n_h approximately constant over admissions strata, the combined ratio estimator is approximately equivalent to the simple ratio estimator

$$\hat{Y} = \left(\frac{\sum_{h=1}^n y_h}{\sum_{h=1}^n x_h} \right) X.$$

The estimator $\hat{Y}$ arises from ignoring stratification by admissions and therefore assumes that the true incidence rate is constant over admissions. Because $\hat{Y}$ is approximately equivalent to $\hat{Y}_C$, and because an estimate of the variance of $\hat{Y}$ can be obtained, it was decided to use $\hat{Y}$ to estimate the incidence rate of hospitalized pesticide poisoning within each state.

Thus, for each year from 1974 to 1976, the sample was stratified with the main strata being the states. Because this report provides incidence rates for the 10 subdivisions of the nation designated as U.S. Environmental Protection Agency (EPA) regions, the following notation will be used where subpopulation refers to all general-care hospitals (i.e., AHA Class 10 hospitals), within a given state for a given year.

Incidence rates were estimated separately for each year of the interval 1974 to 1976 for individual states and for EPA regions. The following notation was used in estimating incidence of the s^{th} state of region r :

- n_{rs} = number of hospitals sampled;
- N_{rs} = number of hospitals in the sampled subpopulation;
- x_{rsi} = admission of the i^{th} sampled hospital;
- y_{rsi} = number of cases seen in the i^{th} sampled hospital;
- x_{rs} = admissions of all n_{rs} sampled hospitals;
- y_{rs} = total number of cases seen in all n_{rs} sampled hospitals;
- x_{rs} = total admissions of all hospitals in the 5th state, and
- $\hat{p}_{rs} = y_{rs}/x_{rs}$ denotes the proportion of total cases to total admissions for sampled hospitals.

Therefore, within the s^{th} state of region r , the estimated incidence of pesticide related admissions can be expressed in terms of the number of admissions to the subpopulation; in particular,

$$\hat{y}_{rs} = \hat{p}_{rs} x_{rs}$$

Thus, the incidence rate per 100,000 admissions is given by

$$\hat{R}_{rs} = 100,000 \hat{p}_{rs}$$

The variance of the estimator was calculated according to the formula used for simple ratio estimators:

$$V[\hat{Y}_{rs}] = \frac{(N_{rs} - n_{rs})}{n_{rs}} \frac{N_{rs}}{(n_{rs} - 1)} \sum_{i=1}^{n_{rs}} (y_{rsi} - \hat{p}_{rs} x_{rsi})^2$$

$$V[\hat{R}_{rs}] = \frac{(100,000)^2}{\bar{x}_{rs}} V[\hat{Y}_{rs}]$$

The appropriate estimate of incidence for a region is simply the sum of the estimates of incidence for the states within the region:

$$\hat{Y}_r = \sum_{s=1}^{n_r} \hat{Y}_{rs}$$

Where n_r is the number of states in the region. Since the estimates for the states within a region are independent, the variance of the estimate for the region is simply the sum of the variances of the state estimates in the region:

$$V[\hat{Y}_r] = \sum_{s=1}^{n_r} V[\hat{Y}_{rs}]$$

Expressed as a rate in terms of 100,000 admissions, the incidence and corresponding variance are, respectively:

$$\hat{R}_r = \frac{\hat{Y}_r}{\bar{x}_r} \times 100,000$$

and

$$V[\hat{R}_r] = \left(\frac{100,000}{\bar{x}_r} \right)^2 V[\hat{Y}_r]$$

Where $\bar{x}_r$ is the total admissions of all hospitals in the region.

Besides total incidence ($\hat{Y}$ and $\hat{R}$) it was desirable to obtain incidence rates for various segments of the population. For example, the incidence rates of intentional and accidental poisonings were of interest as were incidence rates for various age groups in the population. The estimation of such incidence rates followed the same ratio estimation procedure as described above.

Nonresponse of selected hospitals was taken into consideration in the study design. The hospital administrator at each selected hospital was initially notified by letter of the hospital's selection and of the approximate date that a field epidemiologist would be visiting the hospital. Personal visits to hospitals were used in an effort to increase hospital participation, although it was anticipated that some hospital administrators would deny their hospital's participation. Other factors leading to non-response were due to the hospital's inability to identify the appropriate ICDA codes or unavailability of hospital administrator or record librarian at the time of the field visit.

The population of hospitals were divided into two main strata: those participating hospitals for which patient records were available; and those hospitals for which records were not accessible, even after a second contact was made in an attempt to obtain the needed records. A random subsample of the hospitals in the nonresponse stratum was selected in order to compare characteristics of these hospitals with those of participating hospitals.

Field epidemiologists were trained to abstract records for all patients with the designated ICDA codes. The training consisted of a workshop course, which was held in Fort Collins, Colorado in July 1977. Investigators followed specific and standard directions in abstracting data from hospital

records in order to obtain maximum uniformity in data. The completed data forms were edited and coded according to the procedures presented in the training manual for the study (Appendix T).

RESULTS

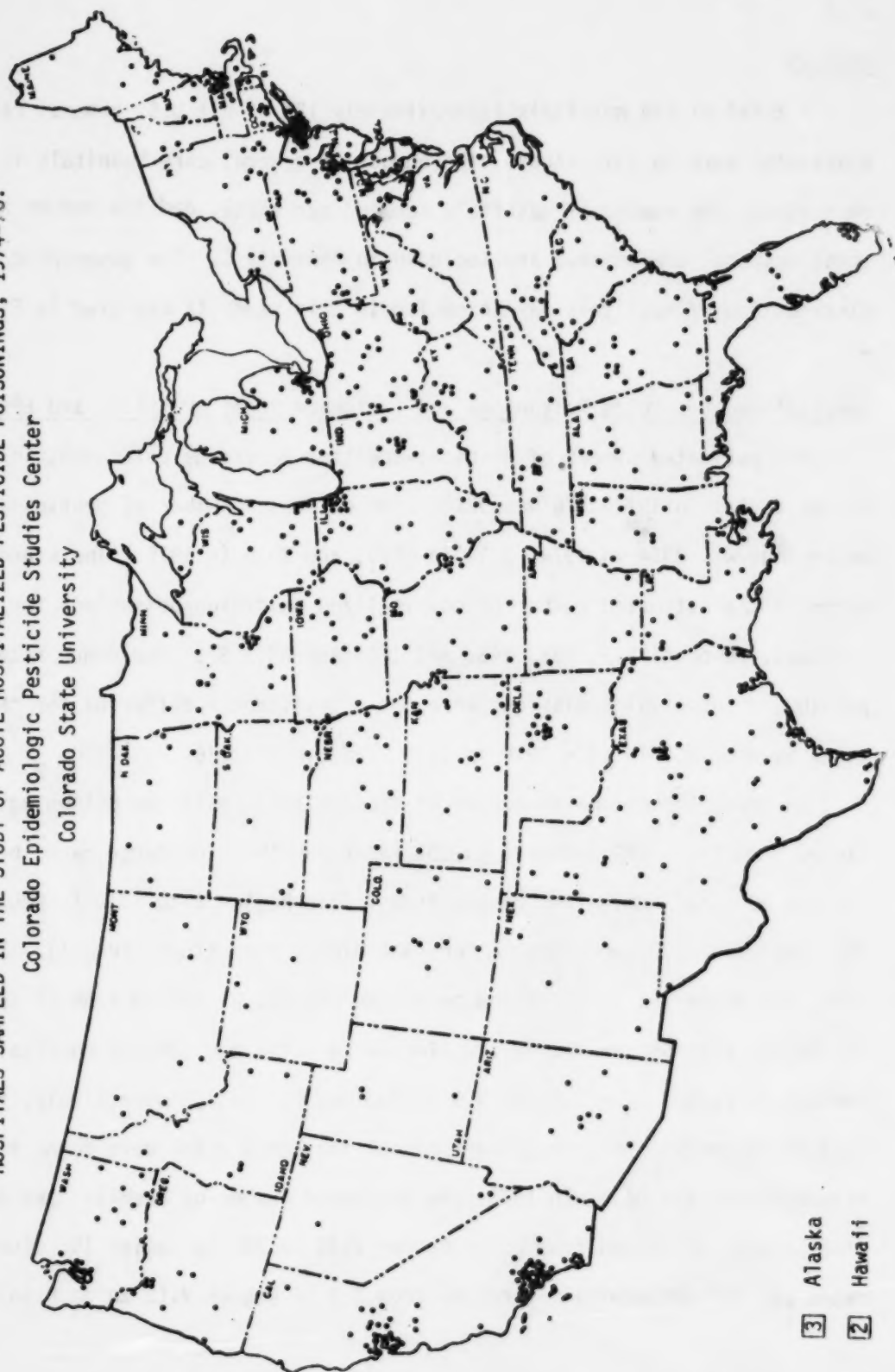
A total of 754 hospitals (approximately 12% of all U.S. general care hospitals) were in this study. The number of general-care hospitals in each state, the number of hospitals sampled per state, and the number of total hospital admissions, are included in Appendix C. The geographic distribution of hospitals participating in this study is depicted in Figure 2.

Hospitalized Pesticide Poisonings and Incidence Rates by Nation and EPA Region

The estimated number of hospital-admitted pesticide poisonings in the United States in 1974-1976 was 9278. The estimated number of pesticide poisonings was 2954 in 1974, 3314 in 1975, and 3010 in 1976. The standard error of the estimated number of hospitalized pesticide poisonings for 1974-1976 was, respectively, 232, 246, and 186 (Appendix S). Incidence rates per 100,000 hospital admissions were not significantly different for the three years: 8.7 in 1974; 9.6 in 1975; and 8.5 in 1976.

In 1974, the estimated number of hospitalized pesticide poisonings ranged from 24 in EPA Region I to 801 in Region IV. Incidence rates per 100,000 hospital admissions ranged from 1.3 in Region I to 13.6 in Region IV. The variation among the regions was highly significant ($P < .01$). In 1975, the number of hospitalized pesticide poisonings ranged from 71 in EPA Region I to 985 in Region IV. Incidence rates per 100,000 hospitalized admissions ranged from 3.8 and 3.9 in Regions II and I, respectively, to 16.3 in Region IV; the estimated regional incidence rates were found to be heterogeneous ($P < .01$). In 1976, the estimated number of hospitalized pesticide poisonings ranged from 25 in Region VIII to 755 in Region IV. Incidence rates per 100,000 admissions ranged from 2.2 in Region VIII to 12.9 in Region

FIGURE 2
HOSPITALS SAMPLED IN THE STUDY OF ACUTE HOSPITALIZED PESTICIDE POISONINGS, 1974-76.
Colorado Epidemiologic Pesticide Studies Center
Colorado State University



VII. As for 1974 and 1975, the estimated incidence rates among the 10 EPA regions were significantly different ($P < .01$).

Poisonings and Rates by Cause of Exposure - Intentional, Non-occupational, Occupational

Nationally, the estimated number of intentional pesticide poisonings in general-care hospitals was 535 in 1974, 499 in 1975, and 446 in 1976. The incidence rates did not differ significantly ($P > .05$) during the three year period.

The national estimates of non-occupational pesticide poisonings increased from 1641 in 1974 to 1806 in 1976. Incidence rates of the non-occupationally exposed groups were similar for 1974 through 1976 ($P > .05$). In 1975, Region IV, with an estimated number of 453 non-occupationally exposed pesticide poisonings was highest among the regions. The incidence rate of non-occupational pesticide poisonings was highest for Region VII (9.5 cases per 100,000 hospital admissions). In 1976, Region IV, with an estimated number of 599 non-occupationally exposed pesticide poisonings, was highest among the 10 geographic regions in both estimated numbers and incidence rate (9.6 cases per 100,000 hospital admissions).

Nationally, the estimated number of pesticide poisonings admitted to general-care hospitals as a result of occupational exposure was highest in 1975. Incidence rates of pesticide poisonings per 100,000 hospital admissions in the occupationally exposed group were 2.0 in 1974, 2.8 in 1975, and decreased to 1.9 in 1976.

In 1974, Region IV had an estimated 229 occupationally related pesticide poisonings and Region VI had an incidence rate of 3.9 cases per 100,000 hospital admissions. These were the highest rates among the regions.

In 1975, Region IV had the largest estimated number of occupationally related pesticide poisonings of 365 and an incidence rate of 6.0 cases per 100,000 hospital admissions. Region VII had the highest incidence rate of 7.0 per 100,000 hospital admissions.

In 1976, Region VI had an estimated 214 occupationally related pesticide poisonings, the highest among the regions, and also had the highest incidence rate of 5.3 cases per 100,000 hospital admissions.

In 1974, farmers had an estimated 234 admitted pesticide poisonings, the highest number of any occupationally exposed group. Region IV had an estimated 120 admitted pesticide poisonings in this group, the highest of any region. Region VI had the highest incidence rate among farmers, 0.9 cases per 100,000 hospital admissions.

In 1975, farmers experienced an estimated 274 hospital-admitted pesticide poisonings, the highest number of any occupationally exposed group. Region IV had an estimated 122 admitted pesticide poisonings, the highest among the regions. Region IV also experienced the highest incidence rate among farmers, 2.0 cases per 100,000 hospital admissions.

In 1976, farmers encountered an estimated 189 hospital-admitted pesticide poisonings, once again the highest of any occupationally exposed group. On a regional basis, Region IV had an estimated 80 admitted pesticide poisonings in this group, highest among the regions. Region IV had the highest incidence rate among the hospital-admitted farmers with 1.3 pesticide poisonings per 100,000 hospital admissions.

Poisonings and Rates by Major Pesticide Class

Organophosphates were most often involved in occupationally related hospital-admitted pesticide poisonings in 1974 and 1976.

In 1974, organophosphates were involved in an estimated 341 such poisonings; chlorinated hydrocarbons were estimated to be responsible for only 49 cases. Region IV had an estimated 130 organophosphate poisonings, highest among the regions. Region IX had the highest incidence rate of organophosphate poisonings (2.4 cases per 100,000 hospital admissions).

In 1975, organophosphates were involved in an estimated 291 occupationally related hospital-admitted pesticide poisonings; chlorinated hydrocarbons were estimated to be responsible for only 42 such cases. However, "other" compounds were involved in an estimated 392 occupationally related hospital-admitted pesticide poisonings. Region IV, with an estimated 93 organophosphate poisonings, and Region VII, with an incidence rate of 1.9 cases per 100,000 admissions, were high among all EPA regions.

In 1976, organophosphate pesticides contributed to an estimated 331 occupationally related hospital-admitted pesticide poisonings. Region VI had an estimated 107 organophosphate poisonings, highest of all EPA regions. Region VII had the highest incidence rate of organophosphate pesticide poisonings (2.9 cases per 100,000 hospital admissions). It is of considerable interest that the chlorinated hydrocarbons did not cause any poisonings in the occupational related group.

Poisonings and Rates Among Children 0-4 Years

In 1974, an estimated 1015 children 0-4 years of age were admitted to hospitals as a result of pesticide poisonings. In Region V, an estimated 231 children were admitted to hospitals, more than in any other region. Region IX had an incidence rate of 5.1 cases per 100,000 hospital admissions, highest among all regions.

In 1975, an estimated 1186 children under 5 years of age were admitted to hospitals as a result of pesticide poisonings. In Region IV, an estimated

271 children were admitted to hospitals, more than in any other region. Region IX had an incidence rate of 7.1 cases per 100,000 admissions, the highest among all regions.

In 1976, an estimated 1181 children 0-4 years of age were hospitalized as a result of pesticide poisonings. Again Region IV, with an estimated 278 children admitted, was highest among all regions. Region IX had an incidence rate of 5.6 cases per 100,000 hospital admissions, higher than any other region.

Poisoning Deaths by Cause of Exposure and Age

A total of 120 of the estimated number of hospitalized pesticide poisonings resulted in death. An estimated 48 hospitalized individuals died in 1974 because of pesticide poisonings. None of these were occupationally related deaths. It was estimated that 24 persons died in hospitals as a result of pesticide poisonings in 1975. There were no occupationally related deaths. An estimated 48 hospital-admitted deaths occurred in 1976 as a result of pesticide poisonings. Approximately 16 of these were occupationally exposed workers.

In 1974-1976, among occupationally exposed workers, 8 deaths were estimated in the 35-44 year age group, and another 8 in the 45-54 year age group. During the same 3-year period, 8 deaths were estimated in the non-occupational hospital admitted pesticide poisonings among children under 5 years of age.

DISCUSSION

One of the primary objectives of the Second National Study of Hospitalized Pesticide Poisonings, 1974-1976, was to serve as a source of continuous data to supplement the first national study of pesticide poisonings completed for 1971-1973. Both the methodology used in the design and the procedures for estimating the frequency of hospitalized pesticide poisonings and rates per 100,000 hospital admissions in the second national study were compatible to those methods used in the first study. In fact, 12 percent of the hospitals in the second study participated in the first national study of hospitalized pesticide poisonings. The compatibility between the two studies allowed for yearly comparisons, as well as comparisons between the two three-year periods.

The first Study of Hospitalized Pesticide Poisonings in the United States, 1971-1973 (1) reported, not only on the estimated numbers and rates of hospitalized pesticide poisonings, but also on the various epidemiologic factors related to hospital admitted pesticide poisonings, such as person, place, time, and agent factors. However, for the sake of comparability with results in EPA's summary (15) of our results for 1971-1973, this report presents only estimated numbers and rates of hospital admitted pesticide poisonings for 1974-1976 in a similar format. For a complete review of the results of the 1971-1973 study that are briefly presented in this discussion, the reader is encouraged to review the report on the first National Study of Hospitalized Pesticide Poisonings (1).

The estimated rate of hospital admitted pesticide poisonings per 100,000 hospital admissions in the United States remained quite stable over the six-year study period, having ranged from 8.2 in 1971 to 9.6 in 1975 (see Table 105). In particular, the difference in the average estimated rate for the two three-year periods was not statistically significant (8.5 and 8.9, respectively).

In spite of the stable national rate, an examination of Table 106 reveals that many of the annual estimated rates for the EPA regions fluctuated both within and among regions during the six years, 1971-1976. The incidence rates for EPA Region I remained low and relatively stable throughout the six years of study. Similarly, Regions V and VI each had nearly constant rates for 1971 through 1976, ranging from 5.6 to 6.9 and 11.0 to 12.8, respectively. For the period 1971-1976, the rates for Regions II, IV and VII increased, while those for Regions III, VIII and IX decreased. On a year-by-year basis, the rates for Regions IV, VI and IX were consistently in excess of the rate for the total U.S. On the other hand, the rates for Regions, I, II and V were consistently lower than the annual U.S. rate. The rates for Regions III, VII, VIII and X showed large fluctuations per year. However, the difference in the average estimated rates for the two three-year periods was statistically significant ($p=.05$) for only Region III.

The estimated rates of hospitalized pesticide poisonings, as categorized by type of exposure (i.e., occupational, non-occupational, and intentional) were homogeneous within each category throughout the six-year period (see Table 107). In each of the two three-year periods, the average estimated incidence rate of non-occupational poisonings was double that of occupational poisonings. The estimated incidence rates of intentional poisonings remained consistently low with a range of 1.3 to 1.6 per 100,000 hospital admissions. Within the occupational group, farmers continued to experience the highest estimated rate of hospitalized pesticide poisonings (Table 108). The only occupational groups which experienced an increase in the rate of hospitalized pesticide poisonings during the second three-year study were farmers and agricultural workers.

Rates of hospitalized pesticide poisonings in the occupational category were also estimated by major pesticide class. The rate for organophosphate related hospitalized poisonings decreased over the six-year time span. The only other noticeable change was the increase in the poisoning rate caused by compounds in the "other" category (Table 109).

The number of pesticide deaths occurring during the two three-year study periods were 25 in 1971-1973 and 15 in 1974-1976. Of the 25 deaths observed in 1971-1973, 15 were intentional, 6 were non-occupational (including 2 children less than 10 years of age), 3 were occupational and 1 was unknown. Of the 15 observed deaths in 1974-1976, 9 were intentional, 3 were non-occupational (including 1 child less than 10 years of age), 2 were occupational, and 1 was unknown.

SUMMARY

The national estimated rate of hospitalized pesticide poisonings ranged from 8.2 to 9.6 during the six years of the study. The six-year study of hospitalized pesticide poisonings has revealed that approximately one of every two pesticide poisonings occur in the non-occupational exposure group. In this group, children under 10 years of age account for the greatest number of hospitalized cases. Although the estimated rate of intentional pesticide poisonings was lower than that for occupational and non-occupational hospitalized pesticide poisonings, the intentional hospitalized cases account for approximately 58% of all the deaths. The national hospitalized pesticide poisoning rates remained quite stable during the six-year data period, but several of the EPA regional rates fluctuated from year to year. The organophosphate compounds accounted for a large number of hospitalized cases in the occupationally exposed group. During the second study, many poisoning cases were caused by unknown compounds.

TABLE 1

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS IN THE UNITED STATES IN 1974, 1975, and 1976.

	ESTIMATED NUMBER	RATES
1974	2954	8.7
1975	3314	9.6
1976	3010	8.5

TABLE 2
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1974.

EPA REGION	ESTIMATED NUMBER	RATES
I	24	1.3
II	156	4.3
III	197	5.4
IV	801	13.6
V	500	6.9
VI	453	11.8
VII	216	10.2
VIII	52	4.8
IX	478	13.0
X	77	7.2
TOTAL	2954	8.7

TABLE 3
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1975.

EPA REGION	ESTIMATED NUMBER	RATES
I	71	3.9
II	140	3.8
III	150	4.1
IV	985	16.3
V	415	5.6
VI	435	11.1
VII	394	18.0
VIII	75	6.7
IX	556	15.0
X	93	8.6
TOTAL	3314	9.6

TABLE 4

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, EPA
REGIONS IN 1976.

EPA REGION	ESTIMATED NUMBER	RATES
I	61	3.4
II	240	6.4
III	146	3.9
IV	755	12.1
V	457	6.1
VI	493	12.2
VII	287	12.9
VIII	25	2.2
IX	452	12.2
X	94	8.5
TOTAL	3010	8.5

TABLE 5

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION I AND STATES IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	24	1.3	71	3.9	61	3.4
MAINE	6	3.3	6	3.3	6	3.4
NEW HAMPSHIRE	0	0.0	0	0.0	8	6.0
VERMONT	0	0.0	30	37.9	0	0.0
MASSACHUSETTS	8	0.9	24	2.8	16	1.9
RHODE ISLAND	0	0.0	11	8.5	12	9.7
CONNECTICUT	10	2.3	0	0.0	19	4.3

TABLE 6

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION II AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	156	4.3	140	3.8	240	6.4
NEW YORK	75	2.9	66	2.5	95	3.5
NEW JERSEY	81	8.2	74	7.3	145	13.9

TABLE 7

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION III AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	197	5.4	150	4.1	146	3.9
PENNSYLVANIA	74	4.1	64	3.6	55	3.0
DELAWARE	0	0.0	0	0.0	15	18.7
MARYLAND	15	3.1	23	4.7	32	6.2
DISTRICT OF COLUMBIA	23	12.4	0	0.0	0	0.0
VIRGINIA	77	10.7	59	8.0	31	4.1
WEST VIRGINIA	8	2.3	4	1.1	13	3.2

TABLE 8

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION IV AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	801	13.6	985	16.3	755	12.1
NORTH CAROLINA	115	14.0	169	20.1	156	18.0
SOUTH CAROLINA	45	10.3	91	20.6	65	14.4
GEORGIA	195	23.6	87	10.3	73	8.3
FLORIDA	169	12.4	123	18.6	192	13.0
KENTUCKY	58	10.0	121	19.9	54	8.7
TENNESSEE	138	17.9	206	26.3	64	7.8
ALABAMA	37	5.8	116	17.7	72	10.6
MISSISSIPPI	44	10.2	72	16.4	79	17.7

TABLE 9

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION V AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	500	6.9	415	5.6	457	6.1
OHIO	92	5.4	94	5.4	47	2.7
INDIANA	24	2.8	47	5.5	23	2.7
ILLINOIS	178	9.3	116	6.0	228	11.6
MICHIGAN	70	5.1	46	3.3	61	4.3
WISCONSIN	41	5.4	40	5.3	64	8.4
MINNESOTA	95	13.8	72	10.2	34	4.8

TABLE 10

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VI AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	453	11.8	435	11.1	493	12.2
ARKANSAS	66	17.3	139	34.7	101	24.5
LOUISIANA	81	12.2	26	3.8	24	3.5
OKLAHOMA	37	7.7	54	11.3	87	18.0
TEXAS	261	12.1	216	9.9	256	11.3
NEW MEXICO	8	4.5	0	0.0	25	13.5

TABLE 11

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VII AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VII	216	10.2	394	18.0	287	12.9
IOWA	52	9.6	96	17.3	89	15.7
MISSOURI	77	8.8	78	8.7	65	7.1
NEBRASKA	32	11.3	81	27.7	25	8.2
KANSAS	55	12.7	139	31.2	108	24.0

TABLE 12

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION VIII AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	52	4.8	75	6.7	25	2.2
NORTH DAKOTA	0	0.0	30	21.6	10	6.8
SOUTH DAKOTA	0	0.0	7	5.4	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	52	12.0	38	8.6	15	3.4
UTAH	0	0.0	0	0.0	0	0.0

TABLE 13

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION IX AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	478	13.0	556	15.0	452	12.2
CALIFORNIA	389	12.4	537	17.0	376	11.9
ARIZONA	89	25.9	19	5.7	39	11.1
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	37	36.5

TABLE 14

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, REGION X AND STATES, IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	77	7.2	93	8.6	94	8.5
IDAHO	7	5.9	36	28.4	28	21.7
WASHINGTON	62	11.3	48	8.7	57	10.3
OREGON	8	2.5	9	2.4	9	2.5
ALASKA	0	0.0	0	0.0	0	0.0

TABLE 15

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE IN THE UNITED STATES IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
OCCUPATIONAL	686	2.0	985	2.8	685	1.9
NON-OCCUPATIONAL	1641	4.8	1773	5.1	1806	5.1
INTENTIONAL	535	1.6	499	1.4	446	1.3
UNCLASSIFIED	92		57		73	
TOTAL	2954	8.7	3314	9.6	3010	8.5

TABLE 16

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGIONS IN 1974.

EPA REGION	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	6	0.2	10	0.6	8	0.4
II	24	0.7	115	3.2	17	0.5
III	37	1.0	54	1.5	109	3.0
IV	229	3.9	440	7.5	85	1.4
V	39	0.5	372	5.1	87	1.2
VI	141	3.7	228	5.9	48	1.2
VII	58	2.7	139	6.5	17	0.8
VIII	9	0.8	17	1.6	26	2.4
IX	113	3.1	235	6.4	130	3.5
X	30	2.8	31	2.9	8	0.7
U.S. TOTAL	686	2.0	1641	4.8	535	1.6

TABLE 17

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION I AND STATES IN 1974.

REGION AND STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	6	0.2	10	0.6	8	0.4
MAINE	6	3.3	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	8	0.9
RHODE ISLAND	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	10	2.3	0	0.0

TABLE 18

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION II AND STATES IN 1974.

REGION AND STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	24	0.7	115	3.2	17	0.5
NEW YORK	8	0.3	50	1.9	17	0.6
NEW JERSEY	16	1.6	65	6.5	0	0.0

TABLE 19

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION III AND STATES IN 1974.

REGION AND STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	37	1.0	54	1.5	109	3.0
PENNSYLVANIA	8	0.5	41	2.3	25	1.4
DELAWARE	0	0.0	0	0.0	0	0.0
MARYLAND	8	1.6	0	0.0	8	1.6
DISTRICT OF COLUMBIA	12	6.2	0	0.0	12	6.2
VIRGINIA	9	1.2	9	1.2	60	8.3
WEST VIRGINIA	0	0.0	4	1.1	4	1.1

TABLE 20

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE
OF EXPOSURE, EPA REGION IV AND STATES IN 1974.

REGION AND STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	229	3.9	440	7.5	85	1.4
NORTH CAROLINA	33	4.0	49	6.0	8	1.0
SOUTH CAROLINA	0	0.0	45	10.3	0	0.0
GEORGIA	54	6.6	101	12.3	39	4.7
FLORIDA	54	3.9	100	7.3	15	1.1
KENTUCKY	0	0.0	58	10.0	0	0.0
TENNESSEE	42	5.4	69	8.9	14	1.8
ALABAMA	28	4.4	0	0.0	0	0.0
MISSISSIPPI	18	4.1	18	4.1	9	2.0

TABLE 21

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION V AND STATES IN 1974.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	39	0.5	372	5.1	87	1.2
OHIO	15	0.9	61	3.6	15	0.9
INDIANA	0	0.0	24	2.8	0	0.0
ILLINOIS	7	0.4	156	8.1	15	0.8
MICHIGAN	0	0.0	46	3.4	23	1.7
WISCONSIN	8	1.1	24	3.2	8	1.1
MINNESOTA	9	1.3	61	8.8	26	3.8

TABLE 22
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VI AND STATES IN 1974.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	141	3.7	228	5.9	48	1.2
ARKANSAS	28	7.4	28	7.4	0	0.0
LOUISIANA	9	1.4	72	10.8	0	0.0
OKLAHOMA	9	1.9	9	1.9	9	1.9
TEXAS	95	4.4	119	5.5	40	1.8
NEW MEXICO	0	0.0	0	0.0	8	4.5

TABLE 23
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VII AND STATES IN 1974.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VII	58	2.7	139	6.5	17	0.8
IOWA	7	1.4	44	8.2	0	0.0
MISSOURI	34	3.9	43	4.9	0	0.0
NEBRASKA	8	2.8	16	5.7	8	2.8
KANSAS	9	2.1	36	8.4	9	2.1

TABLE 24
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VIII AND STATES IN 1974.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	9	0.8	17	1.6	26	2.4
NORTH DAKOTA	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	9	2.0	0	0.0	0	0.0
UTAH	0	0.0	17	4.0	26	6.0
			0	0.0	0	0.0

TABLE 25
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IX AND STATES IN 1974.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	113	3.1	235	6.4	130	3.5
CALIFORNIA	24	0.8	235	7.5	130	4.1
ARIZONA	89	25.9	0	0.0	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0

TABLE 26
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION X AND STATES IN 1974.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	30	2.8	31	2.9	8	0.7
IDAHO	7	5.9	0	0.0	0	0.0
WASHINGTON	23	4.2	23	4.2	8	1.4
OREGON	0	0.0	8	2.5	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0

TABLE 27
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGIONS IN 1975.

EPA REGION	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	8	0.4	35	1.9	29	1.6
II	16	0.4	100	2.7	25	0.7
III	33	3.6	92	2.5	25	0.7
IV	365	6.0	453	7.5	150	2.5
V	66	0.9	269	3.6	71	1.0
VI	181	4.6	193	4.9	51	1.3
VII	154	7.0	207	9.5	24	1.1
VIII	18	1.6	42	3.8	15	1.3
IX	110	3.0	340	9.2	100	2.7
X	34	3.1	45	4.2	14	1.3
U.S. TOTAL	985	2.8	1776	5.1	504	1.5

TABLE 28
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION I AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	8	0.4	35	1.9	29	1.6
MAINE	0	0.0	6	3.3	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	15	18.9	15	18.9
MASSACHUSETTS	8	0.9	8	0.9	8	0.9
RHODE ISLAND	0	0.0	6	4.3	6	4.3
CONNECTICUT	0	0.0	0	0.0	0	0.0

TABLE 29
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION II AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	16	0.4	100	2.7	25	0.7
NEW YORK	8	0.3	42	1.6	17	0.6
NEW JERSEY	8	0.8	58	5.6	8	0.8

TABLE 30
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION III AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	33	3.6	92	2.5	25	0.7
PENNSYLVANIA	8	0.5	56	3.1	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	15	3.1	8	1.6
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0
VIRGINIA	25	3.4	17	2.3	17	2.3
WEST VIRGINIA	0	0.0	4	1.1	0	0.0

TABLE 31
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IV AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	365	6.0	453	7.5	150	2.5
NORTH CAROLINA	40	4.8	97	11.5	24	2.9
SOUTH CAROLINA	61	13.7	30	6.9	0	0.0
GEORGIA	24	2.8	47	5.6	8	0.9
FLORIDA	23	1.6	69	4.8	31	2.2
KENTUCKY	30	5.0	75	12.4	15	2.5
TENNESSEE	151	19.3	27	3.5	27	3.5
ALABAMA	27	4.1	63	9.6	27	4.1
MISSISSIPPI	9	2.1	45	10.2	18	4.1

TABLE 32

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION V AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	66	0.9	269	3.6	71	1.0
OHIO	31	1.8	62	3.6	0	0
INDIANA	8	0.9	31	3.7	8	0.9
ILLINOIS	0	0.0	102	5.2	15	0.7
MICHIGAN	0	0.0	31	2.2	15	1.1
WISCONSIN	0	0.0	16	2.1	24	3.2
MINNESOTA	27	3.8	27	3.8	9	1.3

TABLE 33
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VI AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	181	4.6	193	4.9	51	1.3
ARKANSAS	59	14.9	69	17.3	10	2.5
LOUISIANA	0	0.0	17	2.5	9	1.3
OKLAHOMA	18	3.8	27	5.7	0	0.0
TEXAS	104	4.8	80	3.7	32	1.5
NEW MEXICO	0	0.0	0	0.0	0	0.0

TABLE 34
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VII AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VII	154	7.0	207	9.5	24	1.1
IOWA	44	8.0	37	6.7	15	2.7
MISSOURI	35	3.9	35	3.9	0	0.0
NEBRASKA	57	19.4	24	8.3	0	0.0
KANSAS	18	4.2	111	25.0	9	2.1

TABLE 35
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VIII AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	18	1.6	42	3.8	15	1.3
NORTH DAKOTA	10	7.2	20	14.4	0	0.0
SOUTH DAKOTA	0	0.0	7	5.4	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	8	1.7	15	3.4	15	3.4
UTAH	0	0.0	0	0.0	0	0.0

TABLE 36
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IX AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	110	3.0	340	9.2	100	2.7
CALIFORNIA	100	3.2	330	10.5	100	3.2
ARIZONA	10	2.8	10	2.8	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0

TABLE 37

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION X AND STATES IN 1975.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	34	3.1	45	4.2	14	1.3
IDAHO	7	5.7	22	17.0	7	5.7
WASHINGTON	27	5.0	14	2.5	7	1.2
OREGON	0	0.0	9	2.4	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0

TABLE 38
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGIONS IN 1976.

EPA REGION	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	6	0.3	35	1.9	20	1.1
II	17	0.5	207	5.6	8	0.3
III	27	0.7	82	2.2	20	0.5
IV	169	2.7	599	9.6	88	1.3
V	77	1.1	322	4.3	60	0.8
VI	214	5.3	221	5.5	50	1.2
VII	87	3.9	139	6.2	51	2.9
VIII	0	0.0	17	1.5	7	0.6
IX	69	1.9	271	7.3	112	3.0
X	23	2.1	41	3.7	30	2.7
U.S. TOTAL	685	1.9	1934	5.5	446	1.3

TABLE 39
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION I AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	6	0.3	35	1.9	20	1.1
MAINE	6	3.4	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	8	6.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	8	0.9	8	0.9
RHODE ISLAND	0	0.0	0	0.0	12	9.7
CONNECTICUT	0	0.0	19	4.3	0	0.0

TABLE 40

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION II AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	17	0.5	207	5.6	17	0.5
NEW YORK	8	0.3	79	3.0	8	0.3
NEW JERSEY	9	0.8	128	12.3	9	0.8

TABLE 41
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION III AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	27	0.7	82	2.2	20	0.5
PENNSYLVANIA	8	0.4	39	2.1	8	0.4
DELAWARE	15	18.7	0	0.0	0	0.0
MARYLAND	0	0.0	24	4.7	8	1.6
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0
VIRGINIA	0	0.0	15	2.0	0	0.0
WEST VIRGINIA	4	1.1	4	1.1	4	1.1

TABLE 42
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IV AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	169	2.7	599	9.6	88	1.3
NORTH CAROLINA	49	5.7	82	9.5	8	1.0
SOUTH CAROLINA	22	4.8	36	8.0	7	1.6
GEORGIA	16	1.9	40	4.6	16	1.9
FLORIDA	16	1.1	160	10.8	16	1.1
KENTUCKY	15	2.5	39	6.2	0	0.0
TENNESSEE	7	0.9	36	4.3	14	1.7
ALABAMA	18	2.7	45	6.6	9	1.3
MISSISSIPPI	26	5.9	35	7.9	18	3.9

TABLE 43
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION V AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	77	1.1	322	4.3	60	0.8
OHIO	16	0.9	31	1.8	0	0.0
INDIANA	0	0.0	23	2.7	0	0.0
ILLINOIS	28	1.4	166	8.4	35	1.8
MICHIGAN	8	0.5	45	3.2	8	0.5
WISCONSIN	16	2.1	40	5.3	8	1.1
MINNESOTA	9	1.2	17	2.4	9	1.2

TABLE 44

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION VI AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	214	5.3	221	5.5	50	1.2
ARKANSAS	45	10.9	56	13.6	0	0.0
LOUISIANA	8	1.2	16	2.3	0	0.0
OKLAHOMA	17	3.6	35	7.2	26	5.4
TEXAS	136	6.0	96	4.2	24	1.1
NEW MEXICO	8	4.5	17	9.0	0	0.0

TABLE 45

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION VII AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VII	87	3.9	139	6.2	51	2.9
IOWA	44	7.9	30	5.2	15	2.6
MISSOURI	0	0.0	46	5.1	9	1.0
NEBRASKA	25	8.2	0	0.0	0	0.0
KANSAS	18	4.0	63	14.0	27	6.0

TABLE 46

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY CAUSE OF EXPOSURE, EPA REGION VIII AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	0	0.0	17	1.5	7	0.6
NORTH DAKOTA	0	0.0	10	6.8	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	7	1.7	7	1.7
UTAH	0	0.0	0	0.0	0	0.0

TABLE 47

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION IX AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	69	1.9	271	7.3	112	3.0
CALIFORNIA	31	1.0	251	7.9	94	3.0
ARIZONA	20	5.5	20	5.5	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	18	18.3	0	0.0	18	18.3

TABLE 48
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY
CAUSE OF EXPOSURE, EPA REGION X AND STATES IN 1976.

REGION & STATE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	23	2.1	41	3.7	30	2.7
IDAHO	7	5.4	7	5.4	14	10.8
WASHINGTON	16	3.0	25	4.4	16	3.0
OREGON	0	0.0	9	2.5	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0

TABLE 49

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

REGIONS	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	6	0.2	0	0.0
II	8	0.2	0	0.0	8	0.2	0	0.0
III	0	0.0	0	0.0	20	0.5	17	0.5
IV	0	0.0	24	0.4	120	2.0	24	0.4
V	0	0.0	0	0.0	23	0.3	7	0.1
VI	28	0.7	32	0.8	33	0.9	16	0.4
VII	17	0.8	9	0.4	16	0.7	8	0.4
VIII	0	0.0	0	0.0	0	0.0	9	0.8
IX	10	0.3	95	2.6	0	0.0	0	0.0
X	0	0.0	15	1.4	8	0.8	0	0.0
U.S. TOTAL	63	0.2	175	0.5	234	0.7	81	0.2

TABLE 49 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

REGIONS	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	6	0.2
II	8	0.2	0	0.0	0	0.0	24	0.6
III	0	0.0	0	0.0	0	0.0	37	1.0
IV	53	0.9	8	0.1	0	0.0	229	3.8
V	9	0.1	0	0.0	0	0.0	39	0.5
VI	9	0.2	16	0.7	8	0.2	142	3.9
VII	9	0.4	0	0.0	0	0.0	59	2.7
VIII	0	0.0	0	0.0	0	0.0	9	0.8
IX	8	0.2	0	0.0	0	0.0	113	3.1
X	8	0.8	0	0.0	0	0.0	31	3.0
U.S. TOTAL	104	0.3	24	0.1	8	0.0	689	2.0

TABLE 50
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	6	0.2	0	0.0
MAINE	0	0.0	0	0.0	6	3.3	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 50 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED RATE
REGION I	0	0.0	0	0.0	0	0.0	6 0.2
MAINE	0	0.0	0	0.0	0	0.0	6 3.3
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0 0.0
VERMONT	0	0.0	0	0.0	0	0.0	0 0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0 0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0 0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0 0.0

TABLE 51
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	8	0.2	0	0.0	8	0.2	0	0.0
NEW YORK	0	0.0	0	0.0	8	0.3	0	0.0
NEW JERSEY	8	0.8	0	0.0	0	0.0	0	0.0

TABLE 51 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION II	8	0.2	0	0.0	0	0.0	24	0.6
NEW YORK	0	0.0	0	0.0	0	0.0	8	0.3
NEW JERSEY	8	0.8	0	0.0	0	0.0	16	1.6

TABLE 52
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	20	0.5	17	0.5
PENNSYLVANIA	0	0.0	0	0.0	8	0.5	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	0	0.0	0	0.0	8	1.6
DISTRICT OF COLUMBIA	0	0.0	0	0.0	12	6.2	0	0.0
VIRGINIA	0	0.0	0	0.0	0	0.0	9	1.2
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 52 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	0	0.0	37	1.0
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	8	0.5
DELAWARE	0	0.0	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	0	0.0	0	0.0	8	1.6
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0	12	6.2
VIRGINIA	0	0.0	0	0.0	0	0.0	9	1.2
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 53

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION IV	0 0.0	24 0.4	120 2.0	24 0.4
NORTH CAROLINA	0 0.0	8 1.0	16 2.0	8 1.0
SOUTH CAROLINA	0 0.0	0 0.0	0 0.0	0 0.0
GEORGIA	0 0.0	16 1.9	23 2.8	16 1.9
FLORIDA	0 0.0	0 0.0	0 0.0	0 0.0
KENTUCKY	0 0.0	0 0.0	0 0.0	0 0.0
TENNESSEE	0 0.0	0 0.0	35 4.5	0 0.0
ALABAMA	0 0.0	0 0.0	28 4.4	0 0.0
MISSISSIPPI	0 0.0	0 0.0	18 4.1	0 0.0

TABLE 53 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IV	53	0.9	8	0.1	0	0.0	229	3.8
NORTH CAROLINA	0	0.0	0	0.0	0	0.0	32	4.0
SOUTH CAROLINA	0	0.0	0	0.0	0	0.0	0	0.0
GEORGIA	0	0.0	0	0.0	0	0.0	55	6.6
FLORIDA	46	3.4	8	0.6	0	0.0	54	4.0
KENTUCKY	0	0.0	0	0.0	0	0.0	0	0.0
TENNESSEE	7	0.9	0	0.0	0	0.0	42	5.4
ALABAMA	0	0.0	0	0.0	0	0.0	28	4.4
MISSISSIPPI	0	0.0	0	0.0	0	0.0	18	4.1

TABLE 54

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER				
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE		
REGION V	0	0.0	0	0.0	23	0.3	7	0.1
OHIO	0	0.0	0	0.0	15	0.9	0	0.0
INDIANA	0	0.0	0	0.0	0	0.0	0	0.0
ILLINOIS	0	0.0	0	0.0	0	0.0	7	0.4
MICHIGAN	0	0.0	0	0.0	0	0.0	0	0.0
WISCONSIN	0	0.0	0	0.0	8	1.1	0	0.0
MINNESOTA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 54 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	9	0.1	0	0.0	0	0.0	39	0.5
OHIO	0	0.0	0	0.0	0	0.0	15	0.9
INDIANA	0	0.0	0	0.0	0	0.0	0	0.0
ILLINOIS	0	0.0	0	0.0	0	0.0	7	0.4
MICHIGAN	0	0.0	0	0.0	0	0.0	0	0.0
WISCONSIN	0	0.0	0	0.0	0	0.0	8	1.1
MINNESOTA	9	1.3	0	0.0	0	0.0	9	1.3

TABLE 55

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	28	0.7	32	0.8	33	0.9	16	0.4
ARKANSAS	28	7.4	0	0.0	0	0.0	0	0.0
LOUISIANA	0	0.0	0	0.0	9	1.4	0	0.0
OKLAHOMA	0	0.0	0	0.0	0	0.0	0	0.0
TEXAS	0	0.0	32	1.5	24	1.1	16	0.7
NEW MEXICO	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 55 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED RATE
REGION VI	9	0.2	16	0.7	8	0.2	142 3.9
ARKANSAS	0	0.0	0	0.0	0	0.0	28 7.4
LOUISIANA	0	0.0	0	0.0	0	0.0	9 1.4
OKLAHOMA	9	1.9	0	0.0	0	0.0	9 1.9
TEXAS	0	0.0	16	0.7	8	0.4	96 4.4
NEW MEXICO	0	0.0	0	0.0	0	0.0	0 0.0

TABLE 56

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	17	0.8	9	0.4	16	0.7	8	0.4
IOWA	0	0.0	0	0.0	7	1.4	0	0.0
MISSOURI	17	2.0	9	1.0	9	1.0	0	0.0
NEBRASKA	0	0.0	0	0.0	0	0.0	8	2.8
KANSAS	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 56 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	9	0.4	0	0.0	0	0.0	59	2.7
IOWA	0	0.0	0	0.0	0	0.0	7	1.4
MISSOURI	0	0.0	0	0.0	0	0.0	35	4.0
NEBRASKA	0	0.0	0	0.0	0	0.0	8	2.8-
KANSAS	9	2.1	0	0.0	0	0.0	9	2.1

TABLE 57

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	9	0.8
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	9	2.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 57 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	9	0.8
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	9	2.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 58

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	10	0.3	95	2.6	0	0.0	0	0.0
CALIFORNIA	0	0.0	16	0.5	0	0.0	0	0.0
ARIZONA	10	2.9	79	23.0	0	0.0	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 58 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	8	0.2	0	0.0	0	0.0	113	3.1
CALIFORNIA	8	0.3	0	0.0	0	0.0	24	0.8
ARIZONA	0	0.0	0	0.0	0	0.0	89	25.9
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 59

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	0	0.0	15	1.4	8	0.8	0	0.0
IDAHO	0	0.0	7	5.9	0	0.0	0	0.0
WASHINGTON	0	0.0	8	1.4	8	1.4	0	0.0
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 59 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	8	0.8	0	0.0	0	0.0	31	3.0
IDAHO	0	0.0	0	0.0	0	0.0	7	18.2
WASHINGTON	8	1.4	0	0.0	0	0.0	24	4.2
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0
						:		
						:		
						:		

TABLE 60

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS IN THE UNITED STATES IN 1975.

REGIONS	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	8	0.4
II	0	0.0	0	0.0	8	0.2	0	0.0
III	16	1.7	0	0.0	8	0.9	8	0.9
IV	15	0.2	32	0.5	122	2.0	62	1.0
V	0	0.0	9	0.1	48	0.7	9	0.1
VI	46	1.2	34	0.9	35	0.9	16	0.4
VII	58	2.7	18	0.8	38	1.7	15	0.7
VIII	0	0.0	0	0.0	0	0.0	10	0.9
IX	38	1.0	15	0.4	8	0.2	23	0.6
X	0	0.0	14	1.2	7	0.6	0	0.0
U.S. TOTAL	173	0.5	122	0.4	274	0.8	151	0.4

TABLE 60 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS IN THE UNITED STATES IN 1975.

REGIONS	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	8	0.4
II	0	0.0	8	0.2	0	0.0	16	0.4
III	0	0.0	0	0.0	0	0.0	32	3.5
IV	46	0.8	0	0.0	90	1.5	367	6.0
V	0	0.0	0	0.0	0	0.0	66	0.9
VI	25	0.6	0	0.0	26	0.7	182	4.7
VII	7	0.3	8	0.4	9	0.4	153	7.0
VIII	8	0.7	0	0.0	0	0.0	18	1.6
IX	8	0.2	0	0.0	18	0.5	110	2.9
X	14	1.2	0	0.0	0	0.0	35	3.1
U.S. TOTAL	108	0.3	16	0.0	143	0.4	987	2.8

TABLE 61
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	8	0.4
MAINE	0	0.0	0	0.0	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	8	0.9
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 61 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	8	0.4
MAINE	0	0.0	0	0.0	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 62

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION II	0	0	8	0
NEW YORK	0	0	8	0
NEW JERSEY	0	0	0	0

TABLE 62 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED RATE
REGION II	0	0.0	8	0.2	0	0.0	16 0.4
NEW YORK	0	0.0	0	0.0	0	0.0	8 0.3
NEW JERSEY	0	0.0	8	0.8	0	0.0	8 0.8

TABLE 63
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION III	16	1.7	0	0.0
PENNSYLVANIA	8	0.5	8	0.9
DELAWARE	0	0.0	0	0.0
MARYLAND	0	0.0	0	0.0
DISTRICT OF COLUMBIA	0	0.0	0	0.0
VIRGINIA	8	1.1	0	0.0
WEST VIRGINIA	0	0.0	8	1.1
			0	0.0
			0	0.0

TABLE 63 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	0	0.0	32	3.5
PENNSYLVANIA	0	0.0	0	0.0	0	0.0	0	0.0
DELAWARE	0	0.0	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	0	0.0	0	0.0	0	0.0
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0	0	0.0
VIRGINIA	0	0.0	0	0.0	0	0.0	24	3.3
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 64
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION IV	15	0.2	32	0.5	122	2.0	62	1.0
NORTH CAROLINA	0	0.0	0	0.0	24	2.9	16	1.9
SOUTH CAROLINA	8	1.7	8	1.7	15	3.4	15	3.4
GEORGIA	0	0.0	0	0.0	8	0.9	8	0.9
FLORIDA	0	0.0	8	0.5	0	0.0	0	0.0
KENTUCKY	0	0.0	0	0.0	23	3.7	0	0.0
TENNESSEE	7	0.9	7	0.9	34	4.4	14	1.8
ALABAMA	0	0.0	0	0.0	18	2.7	9	1.4
MISSISSIPPI	0	0.0	9	2.1	0	0.0	0	0.0

TABLE 64 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT-CLASSIFIED		TOTAL
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED RATE
REGION IV	46	0.8	0	0.0	90	1.5	367 6.0
NORTH CAROLINA	0	0.0	0	0.0	0	0.0	40 4.8
SOUTH CAROLINA	8	1.7	0	0.0	8	1.7	62 13.6
GEORGIA	8	0.9	0	0.0	0	0.0	24 2.7
FLORIDA	15	1.1	0	0.0	0	0.0	23 1.6
KENTUCKY	8	1.2	0	0.0	0	0.0	31 4.9
TENNESSEE	7	0.9	0	0.0	82	10.4	151 19.3
ALABAMA	0	0.0	0	0.0	0	0.0	27 4.1
MISSISSIPPI	0	0.0	0	0.0	0	0.0	9 2.1

TABLE 65
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
R REGION V	0	0.0	9	0.1	48	0.7	9	0.1
OHIO	0	0.0	0	0.0	31	1.8	0	0.0
INDIANA	0	0.0	0	0.0	8	0.9	0	0.0
ILLINOIS	0	0.0	0	0.0	0	0.0	0	0.0
MICHIGAN	0	0.0	0	0.0	0	0.0	0	0.0
WISCONSIN	0	0.0	0	0.0	0	0.0	0	0.0
MINNESOTA	0	0.0	9	1.3	9	1.3	9	1.3

TABLE 65 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER			PROFESSIONAL OR SEMI- PROFESSIONAL			UNKNOWN OR NOT CLASSIFIED			TOTAL
	ESTIMATED	RATE		ESTIMATED	RATE		ESTIMATED	RATE		
REGION V	0	0.0		0	0.0		0	0.0	66	0.9
OHIO	0	0.0		0	0.0		0	0.0	31	1.8
INDIANA	0	0.0		0	0.0		0	0.0	8	0.9
ILLINOIS	0	0.0		0	0.0		0	0.0	0	0.0
MICHIGAN	0	0.0		0	0.0		0	0.0	0	0.0
WISCONSIN	0	0.0		0	0.0		0	0.0	0	0.0
MINNESOTA	0	0.0		0	0.0		0	0.0	27	3.9

TABLE 66

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	46	1.2	34	0.9	35	0.9	16	0.4
ARKANSAS	30	7.4	10	2.5	10	2.5	0	0.0
LOUISIANA	0	0.0	0	0.0	0	0.0	0	0.0
OKLAHOMA	0	0.0	0	0.0	9	1.9	10	2.0
TEXAS	16	0.7	24	1.1	16	0.7	16	0.7
NEW MEXICO	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 66 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	25	0.6	0	0.0	26	0.7	182	4.7
ARKANSAS	0	0.0	0	0.0	10	2.5	60	14.9
LOUISIANA	0	0.0	0	0.0	0	0.0	0	0.0
OKLAHOMA	9	1.9	0	0.0	0	0.0	18	3.8
TEXAS	16	0.7	0	0.0	16	0.7	104	4.8
NEW MEXICO	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 67

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	58	2.7	18	0.8	38	1.7	15	0.7
IOWA	0	0.0	0	0.0	29	5.3	7	1.3
MISSOURI	17	1.9	9	1.0	9	1.0	0	0.0
NEBRASKA	41	13.8	0	0.0	0	0.0	8	2.8
KANSAS	0	0.0	9	2.1	0	0.0	0	0.0

TABLE 67 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED RATE
REGION VII	7	0.3	8	0.4	9	0.4	153 7.0
IOWA	7	1.3	0	0.0	0	0.0	43 7.9
MISSOURI	0	0.0	0	0.0	0	0.0	35 3.9
NEBRASKA	0	0.0	8	2.8	0	0.0	57 19.4
KANSAS	0	0.0	0	0.0	9	2.1	18 4.2

TABLE 68

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	10	0.9
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	10	7.2
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	0	0.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 68 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI - PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	8	0.7	0	0.0	0	0.0	18	1.6
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	10	7.2
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	8	1.7	0	0.0	0	0.0	8	1.7
UTAH	0	0.0	0	0.0	0	0.0	0	2.9

TABLE 69

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	38	1.0	15	0.4	8	0.2	23	0.6
CALIFORNIA	38	1.2	15	0.5	8	0.2	23	0.7
ARIZONA	0	0.0	0	0.0	0	0.0	0	0.0
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 69 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	8	0.2	0	0.0	18	0.5	110	2.9
CALIFORNIA	8	0.2	0	0.0	8	0.2	100	3.0
ARIZONA	0	0.0	0	0.0	10	2.8	10	2.8
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 70
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	0	0.0	14	1.2	7	0.6	0	0.0
IDAHO	0	0.0	0	0.0	0	0.0	0	0.0
WASHINGTON	0	0.0	14	2.5	7	1.2	0	0.0
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 70 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	14	1.2	0	0.0	0	0.0	35	3.1
IDAHO	7	5.7	0	0.0	0	0.0	7	5.7
WASHINGTON	7	1.2	0	0.0	0	0.0	28	4.9
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 71

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

REGIONS	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	6	0.3	0	0.0
II	9	0.3	0	0.0	8	0.2	0	0.0
III	4	0.1	0	0.0	0	0.0	15	0.4
IV	9	0.1	23	0.4	80	1.3	15	0.2
V	16	0.2	0	0.0	24	0.3	16	0.2
VI	22	0.5	75	1.9	40	1.0	60	1.5
VII	25	1.1	24	1.1	15	0.7	15	0.7
VIII	0	0.0	0	0.0	0	0.0	0	0.0
IX	23	0.6	36	1.0	0	0.0	10	0.3
X	0	0.0	0	0.0	16	1.5	7	0.6
TOTAL	108	0.3	158	0.4	189	0.6	158	0.4

TABLE 71 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

REGIONS	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
I	0	0.0	0	0.0	0	0.0	6	0.3
II	0	0.0	0	0.0	0	0.0	17	0.5
III	0	0.0	0	0.0	8	0.2	27	0.7
IV	35	0.6	0	0.0	8	0.1	170	2.7
V	21	0.3	0	0.0	0	0.0	77	1.1
VI	8	0.2	9	0.2	0	0.0	214	5.3
VII	0	0.0	0	0.0	7	0.3	86	3.9
VIII	0	0.0	0	0.0	0	0.0	0	0.0
IX	0	0.0	0	0.0	0	0.0	69	1.9
X	0	0.0	0	0.0	0	0.0	23	2.1
TOTAL	64	0.2	9	0.0	23	0.1	689	2.0

TABLE 72

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	6	0.3	0	0.0
MAINE	0	0.0	0	0.0	6	3.4	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 72 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION I	0	0.0	0	0.0	0	0.0	6	0.3
MAINE	0	0.0	0	0.0	0	0.0	6	3.4
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	0	0.0	0	0.0	0	0.0
MASSACHUSETTS	0	0.0	0	0.0	0	0.0	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 73
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION II	9 ^a 0.3	0 0.0	8 0.2	0 0.0
NEW YORK	0 0.0	0 0.0	8 0.3	0 0.0
NEW JERSEY	9 0.8	0 0.0	0 0.0	0 0.0

TABLE 73 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	
REGION II	0	0.0	0	0.0	0	0.0	17 0.5
NEW YORK	0	0.0	0	0.0	0	0.0	8 0.3
NEW JERSEY	0	0.0	0	0.0	0	0.0	9 0.8

TABLE 74

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION III	4	0	0	15
PENNSYLVANIA	0	0	0	0
DELAWARE	0	0	0	15
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	0	0	0	0
WEST VIRGINIA	4	0	0	0

TABLE 74 (CONTINUED)

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION III	0	0.0	0	0.0	8	0.2	27	0.7
PENNSYLVANIA	0	0.0	0	0.0	8	0.4	8	0.4
DELAWARE	0	0.0	0	0.0	0	0.0	15	18.7
MARYLAND	0	0.0	0	0.0	0	0.0	0	0.0
DISTRICT OF COLUMBIA	0	0.0	0	0.0	0	0.0	0	0.0
VIRGINIA	0	0.0	0	0.0	0	0.0	0	0.0
WEST VIRGINIA	0	0.0	0	0.0	0	0.0	4	1.1

TABLE 75

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION IV	9	0.1	23	0.4	80	1.3	15	0.2
NORTH CAROLINA	0	0.0	0	0.0	41	4.7	8	1.0
SOUTH CAROLINA	0	0.0	7	1.6	7	1.6	7	1.6
GEORGIA	0	0.0	0	0.0	16	1.9	0	0.0
FLORIDA	0	0.0	0	0.0	8	0.5	0	0.0
KENTUCKY	0	0.0	0	0.0	8	1.2	0	0.0
TENNESSEE	0	0.0	7	0.9	0	0.0	0	0.0
ALABAMA	9	1.3	0	0.0	0	0.0	0	0.0
MISSISSIPPI	0	0.0	9	2.0	0	0.0	0	0.0

TABLE 75 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER			PROFESSIONAL OR SEMI- PROFESSIONAL			UNKNOWN OR NOT CLASSIFIED			TOTAL	
	ESTIMATED	RATE		ESTIMATED	RATE		ESTIMATED	RATE		ESTIMATED	RATE
REGION IV	35	0.6		0	0.0		8	0.1		170	2.7
NORTH CAROLINA	0	0.0		0	0.0		0	0.0		49	5.7
SOUTH CAROLINA	0	0.0		0	0.0		0	0.0		21	4.8
GEORGIA	0	0.0		0	0.0		0	0.0		16	1.9
FLORIDA	8	0.5		0	0.0		0	0.0		16	1.0
KENTUCKY	0	0.0		0	0.0		8	1.2		16	2.4
TENNESSEE	0	0.0		0	0.0		0	0.0		7	0.9
ALABAMA	9	1.3		0	0.0		0	0.0		18	2.6
MISSISSIPPI	18	4.0		0	0.0		0	0.0		27	6.0

TABLE 76
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
REGION V	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
OHIO	16	0.2	0	0.0	24	0.3	16	0.2
INDIANA	16	0.9	0	0.0	0	0.0	0	0.0
ILLINOIS	0	0.0	0	0.0	0	0.0	0	0.0
MICHIGAN	0	0.0	0	0.0	7	0.4	0	0.0
WISCONSIN	0	0.0	0	0.0	0	0.0	8	0.5
MINNESOTA	0	0.0	0	0.0	8	1.1	8	1.1
			0	0.0	9	1.2	0	0.0

TABLE 76 (CONTINUED)
 ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
 ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION V	21	0.3	0	0.0	0	0.0	77	1.1
OHIO	0	0.0	0	0.0	0	0.0	16	0.9
INDIANA	0	0.0	0	0.0	0	0.0	0	0.0
ILLINOIS	21	1.1	0	0.0	0	0.0	28	1.5
MICHIGAN	0	0.0	0	0.0	0	0.0	8	0.5
WISCONSIN	0	0.0	0	0.0	0	0.0	16	2.2
MINNESOTA	0	0.0	0	0.0	0	0.0	9	1.2

TABLE 77

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	22	0.5	75	1.9	40	1.0	60	1.5
ARKANSAS	22	5.4	11	2.7	0	0.0	11	2.7
LOUISIANA	0	0.0	0	0.0	0	0.0	8	1.2
OKLAHOMA	0	0.0	0	0.0	0	0.0	9	1.8
TEXAS	0	0.0	56	2.5	40	1.8	32	1.4
NEW MEXICO	0	0.0	8	4.5	0	0.0	0	0.0

TABLE 77 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VI	8	0.2	9	0.2	0	0.0	214	5.3
ARKANSAS	0	0.0	0	0.0	0	0.0	44	10.9
LOUISIANA	0	0.0	0	0.0	0	0.0	8	1.2
OKLAHOMA	0	0.0	9	1.8	0	0.0	18	3.6
TEXAS	8	0.4	0	0.0	0	0.0	136	6.1
NEW MEXICO	0	0.0	0	0.0	0	0.0	8	4.5

TABLE 78
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VII	25	1.1	24	1.1	15	0.7	15	0.7
IOWA	0	0.0	15	2.6	7	1.3	15	2.6
MISSOURI	0	0.0	0	0.0	0	0.0	0	0.0
NEBRASKA	16	5.4	0	0.0	8	2.7	0	0.0
KANSAS	9	2.0	9	2.0	0	0.0	0	0.0

TABLE 78 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED RATE
REGION VII	0	0.0	0	0.0	7	0.3	86 3.9
IOWA	0	0.0	0	0.0	7	1.3	44 7.9
MISSOURI	0	0.0	0	0.0	0	0.0	0 0.0
NEBRASKA	0	0.0	0	0.0	0	0.0	24 8.1
KANSAS	0	0.0	0	0.0	0	0.0	18 4.0

TABLE 79

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION VIII	0	0	0	0
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	0
UTAH	0	0	0	0

TABLE 79 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION VIII	0	0.0	0	0.0	0	0.0	0	0.0
NORTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0	0	0.0
UTAH	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 80
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT		COMMERCIAL APPLICATOR		FARMER		AGRICULTURAL WORKER	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	23	0.6	36	1.0	0	0.0	10	0.3
CALIFORNIA	23	0.7	8	0.3	0	0.0	0	0.0
ARIZONA	0	0.0	10	2.8	0	0.0	10	2.8
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	18	18.3	0	0.0	0	0.0

TABLE 80 (CONTINUED)
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION IX	0	0.0	0	0.0	0	0.0	69	1.9
CALIFORNIA	0	0.0	0	0.0	0	0.0	31	1.0
ARIZONA	0	0.0	0	0.0	0	0.0	20	5.5
NEVADA	0	0.0	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0	18	18.3

TABLE 81
ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE	ESTIMATED RATE
REGION X	0	0	16	7
IDAHO	0	0	0	7
WASHINGTON	0	0	16	0
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE 81 (CONTINUED)
 ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL
 ADMISSIONS, BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976*

	SKILLED OR UNSKILLED LABORER		PROFESSIONAL OR SEMI- PROFESSIONAL		UNKNOWN OR NOT CLASSIFIED		TOTAL	
	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE	ESTIMATED	RATE
REGION X	0	0.0	0	0.0	0	0.0	23	2.1
IDAHO	0	0.0	0	0.0	0	0.0	7	5.4
WASHINGTON	0	0.0	0	0.0	0	0.0	16	3.0
OREGON	0	0.0	0	0.0	0	0.0	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0	0	0.0

TABLE 82

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, BY MAJOR PESTICIDE CLASS IN THE UNITED STATES IN 1974, 1975, AND 1976.

	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
ORGANOPHOSPHATES	341	1.0	291	0.8	331	0.9
CHLORINATED HYDROCARBON INSECTICIDES	49	0.1	42	0.1	0	0.0
CHLORINATED HYDROCARBON HERBICIDES, FUNGICIDES, ETC.	8	0.0	17	0.1	0	0.0
CARBAMATES, AMIDES & RELATED COMPOUNDS	81	0.2	235	0.7	121	0.3
ARSENIC	0	0.0	8	0.0	8	0.0
OTHER	209	0.6	392	1.1	229	0.6
TOTAL	688	2.0	985	2.8	689	2.0

ESTIMATED NUMBER OF PESTICIDES, BY ADJUSTED OCCUPATIONAL PESTICIDE APPLICATIONS BY MAJOR PESTICIDE CLASS, BY REGIONAL

1974

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	6	0	0	0	0	0	6
II	0	0	0	16	0	8	24
III	27	0	0	9	0	0	36
IV	130	23	8	14	0	53	228
V	8	0	0	8	0	24	40
VI	57	17	0	27	0	41	142
VII	9	9	0	0	0	42	60
VIII	9	0	0	0	0	0	9
IX	87	0	0	0	0	26	113
X	8	0	0	7	0	15	30
U.S. TOTAL	341	49	8	81	0	209	688

TABLE 84
RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA
REGIONS, 1974.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.3	0.0	0.0	0.0	0.0	0.0	0.3
II	0.0	0.0	0.0	0.4	0.0	0.2	0.6
III	0.7	0.0	0.0	0.3	0.0	0.0	1.0
IV	2.2	0.4	0.1	0.2	0.0	0.9	3.8
V	0.1	0.0	0.0	0.1	0.0	0.3	0.5
VI	1.5	0.4	0.0	0.7	0.0	1.1	3.7
VII	0.4	0.4	0.0	0.0	0.0	2.0	2.8
VIII	0.8	0.0	0.0	0.0	0.0	0.0	0.8
IX	2.4	0.0	0.0	0.0	0.0	0.7	3.1
X	0.7	0.0	0.0	0.7	0.0	1.4	2.8
U.S. TOTAL	1.0	0.1	0.0	0.3	0.0	0.6	2.0

TABLE 85

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS
1975.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	8	0	0	0	0	0	8
II	0	0	0	0	8	8	16
III	8	0	0	8	0	16	32
IV	93	9	0	100	0	163	365
V	17	0	9	17	0	23	66
VI	76	17	8	28	0	53	182
VII	41	16	0	39	0	59	155
VIII	8	0	0	0	0	10	18
IX	40	0	0	23	0	46	109
X	0	0	0	20	0	14	34
U.S. TOTAL	291	42	17	235	8	392	925

TABLE 86
RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA
REGIONS, 1975.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.4	0.0	0.0	0.0	0.0	0.0	0.4
II	0.0	0.0	0.0	0.0	0.2	0.2	0.4
III	0.2	0.0	0.0	0.2	0.0	0.4	0.8
IV	1.5	0.2	0.0	1.7	0.0	2.7	6.1
V	0.2	0.0	0.1	0.2	0.0	0.3	0.8
VI	1.9	0.4	0.2	0.7	0.0	1.4	4.6
VII	1.9	0.7	0.0	1.8	0.0	2.7	7.1
VIII	0.7	0.0	0.0	0.0	0.0	0.9	1.6
IX	1.1	0.0	0.0	0.6	0.0	1.2	2.9
X	0.0	0.0	0.0	1.9	0.0	1.3	3.2
U.S. TOTAL	0.8	0.1	0.1	0.7	0.0	1.1	2.8

TABLE 87

ESTIMATED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS,
1976.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBANATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0	0	0	0	0	6	6
II	8	0	0	0	0	9	17
III	0	0	0	15	0	12	27
IV	58	0	0	38	8	66	170
V	44	0	0	9	0	23	76
VI	107	0	0	30	0	77	214
VII	65	0	0	22	0	0	87
VIII	0	0	0	0	0	0	0
IX	41	0	0	0	0	28	69
X	8	0	0	7	0	8	23
U.S. TOTAL	331	0	0	121	8	229	689

TABLE 88
RATES PER 100,000 HOSPITAL ADMISSIONS OF OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA
REGIONS, 1976.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0.0	0.0	0.0	0.0	0.0	0.3	0.3
II	0.2	0.0	0.0	0.0	0.0	0.2	0.4
III	0.0	0.0	0.0	0.4	0.0	0.3	0.7
IV	0.9	0.0	0.0	0.6	0.1	1.1	2.7
V	0.6	0.0	0.0	0.1	0.0	0.3	1.0
VI	2.7	0.0	0.0	0.7	0.0	1.9	5.3
VII	2.9	0.0	0.0	1.0	0.0	0.0	3.9
VIII	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IX	1.1	0.0	0.0	0.0	0.0	0.8	1.9
X	0.7	0.0	0.0	0.6	0.0	0.7	2.0
U.S. TOTAL	0.9	0.0	0.0	0.3	0.0	0.7	1.9

TABLE 89
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR
CHILDREN 0-4 YEARS OF AGE IN THE UNITED STATES IN 1974, 1975, AND 1976.

YEAR	ESTIMATED NUMBER	RATE
1974	1015	3.0
1975	1186	3.4
1976	1181	3.4

TABLE 90

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, EPA REGIONS IN 1974, 1975, AND 1976.

EPA REGION	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
I	0	0.0	23	1.3	9	0.5
II	107	3.0	83	2.3	190	5.1
III	53	1.5	68	1.8	67	1.8
IV	217	3.7	271	4.5	278	4.5
V	231	3.2	206	2.8	225	3.0
VI	103	2.7	151	3.8	97	2.4
VII	101	4.8	71	3.2	84	3.8
VIII	0	0.0	20	1.8	0	0.0
IX	187	5.1	263	7.1	208	5.6
X	16	1.5				

TABLE 91

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION I AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION I	0	0.0	23	1.3	9	0.5
MAINE	0	0.0	0	0.0	0	0.0
NEW HAMPSHIRE	0	0.0	0	0.0	0	0.0
VERMONT	0	0.0	15	18.9	0	0.0
MASSACHUSETTS	0	0.0	8	0.9	0	0.0
RHODE ISLAND	0	0.0	0	0.0	0	0.0
CONNECTICUT	0	0.0	0	0.0	9	2.2

TABLE 92
ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR
CHILDREN 0-4 YEARS OF AGE, REGION II AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION II	107	3.0	83	2.3	190	5.1
NEW YORK	50	2.0	25	0.9	71	2.7
NEW JERSEY	57	5.7	58	5.6	119	11.4

TABLE 93

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION III AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION III	53	1.5	68	1.8	67	1.8
PENNSYLVANIA	33	1.8	40	2.2	39	2.1
DELAWARE	0	0.0	0	0.0	0	0.0
MARYLAND	0	0.0	15	3.1	16	3.1
DISTRICT OF COLUMBIA	12	6.2	0	0.0	0	0.0
VIRGINIA	8	1.2	8	1.1	8	1.0
WEST VIRGINIA	0	0.0	4	1.1	4	1.1

TABLE 94

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION IV AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IV	217	3.7	271	4.5	278	4.5.
NORTH CAROLINA	24	3.0	64	7.7	41	4.7.
SOUTH CAROLINA	30	6.8	23	5.2	29	6.4
GEORGIA	8	0.9	16	1.9	16	1.8
FLORIDA	54	3.9	54	3.8	96	6.5
KENTUCKY	44	7.5	37	6.2	39	6.2
TENNESSEE	48	6.2	14	1.8	21	2.6
ALABAMA	0	0.0	27	4.1	27	4.0
MISSISSIPPI	9	2.0	36	8.2	9	2.0

TABLE 95

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION V AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION V	231	3.2	206	2.8	225	3.0
OHIO	46	2.7	39	2.2	16	0.9
INDIANA	24	2.8	31	3.7	23	2.7
ILLINOIS	89	4.6	87	4.5	138	7.0
MICHIGAN	39	2.8	31	2.2	23	1.6
WISCONSIN	16	2.2	0	0.0	8	1.1
MINNESOTA	17	2.5	18	2.6	17	2.4

TABLE 96

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION VI AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VI	103	2.7	151	3.8	97	2.4
ARKANSAS	9	2.5	60	14.9	56	13.6
LOUISIANA	54	8.1	17	2.5	8	1.2
OKLAHOMA	0	0.0	18	3.8	9	1.8
TEXAS	40	1.8	56	2.6	16	0.7
NEW MEXICO	0	0.0	0	0.0	8	4.5

TABLE 97

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION VII AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VII	101	4.8	71	3.2	84	3.8
IOWA	22	4.1	8	1.3	30	5.2
MISSOURI	43	4.9	17	1.9	18	2.0
NEBRASKA	0	0.0	0	0.0	0	0.0
KANSAS	36	8.4	46	10.4	36	8.0

TABLE 98

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION VIII AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION VIII	0	0.0	20	1.8	0	0.0
NORTH DAKOTA	0	0.0	20	14.4	0	0.0
SOUTH DAKOTA	0	0.0	0	0.0	0	0.0
MONTANA	0	0.0	0	0.0	0	0.0
WYOMING	0	0.0	0	0.0	0	0.0
COLORADO	0	0.0	0	0.0	0	0.0
UTAH	0	0.0	0	0.0	0	0.0

TABLE 99

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION IX AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION IX	187	5.1	263	7.1	208	5.6
CALIFORNIA	187	5.9	253	8.0	188	5.9
ARIZONA	0	0.0	10	2.8	20	5.5
NEVADA	0	0.0	0	0.0	0	0.0
HAWAII	0	0.0	0	0.0	0	0.0

TABLE 100

ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS AND RATES PER 100,000 HOSPITAL ADMISSIONS, FOR CHILDREN 0-4 YEARS OF AGE, REGION X AND STATES IN 1974, 1975, AND 1976.

REGION & STATE	1974		1975		1976	
	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE	ESTIMATED NUMBER	RATE
REGION X	16	1.5	30	2.8	23	2.1
IDAHO	0	0.0	15	11.4	7	5.4
WASHINGTON	8	1.4	7	1.2	16	3.0
OREGON	8	2.4	8	2.4	0	0.0
ALASKA	0	0.0	0	0.0	0	0.0

TABLE 101

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP AND CAUSE OF EXPOSURE IN THE UNITED STATES FOR 1974, 1975, AND 1976.*

AGE	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
0-4	0	0	1	8	0	0
5-9	0	0	0	0	0	0
10-14	0	0	0	0	0	0
15-19	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-34	0	0	1	8	1	8
35-44	1	8	0	0	1	8
45-54	1	8	0	0	2	16
55-64	0	0	0	0	0	0
65+	0	0	1	8	5	40
UNKNOWN	0	0	0	0	0	0
TOTAL	2	16	3	24	9	72

* THE ESTIMATES WERE DEVELOPED FROM A RATIO OF THE TOTAL U.S. HOSPITAL ADMISSIONS TO TOTAL SAMPLE HOSPITAL ADMISSIONS, RATHER THAN FROM REGIONAL HOSPITAL ADMISSIONS, TO SAMPLE HOSPITAL ADMISSIONS WITHIN THE INDIVIDUAL REGIONS. THUS, THE TOTAL ESTIMATED NUMBER IN TABLE 101 WILL VARY SLIGHTLY FROM THE SUM OF THE REGIONAL TOTALS IN TABLES 102-104.

TABLE 101 (CONTINUED)
OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP AND CAUSE OF EXPOSURE IN THE UNITED STATES FOR 1974, 1975, AND 1976.

AGE	UNKNOWN		TOTAL	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
0-4	0	0	1	8
5-9	0	0	0	0
10-14	0	0	0	0
15-19	0	0	0	0
20-24	0	0	0	0
25-34	0	0	2	16
35-44	0	0	2	16
45-54	1	8	4	32
55-64	0	0	0	0
65+	0	0	6	48
UNKNOWN	0	0	0	0
TOTAL	1	8	15	120

*THE ESTIMATES WERE DEVELOPED FROM A RATIO OF THE TOTAL U.S. HOSPITAL ADMISSIONS TO TOTAL SAMPLE HOSPITAL ADMISSIONS, RATHER THAN FROM REGIONAL HOSPITAL ADMISSIONS, TO SAMPLE HOSPITAL ADMISSIONS WITHIN THE INDIVIDUAL REGIONS. THUS, THE TOTAL ESTIMATED NUMBER IN TABLE 101 WILL VARY SLIGHTLY FROM THE SUM OF THE REGIONAL TOTALS IN TABLES 102-104

TABLE 102
OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA
REGION IN THE UNITED STATES FOR 1974.*

REGIONS	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0	0	0
II	0	0	0	0	0	0
III	0	0	1	8	3	24
IV	0	0	0	0	0	0
V	0	0	0	0	0	0
VI	0	0	0	0	0	0
VII	0	0	0	0	0	0
VIII	0	0	0	0	0	0
IX	0	0	0	0	0	0
X	0	0	0	0	1	8
U.S. TOTAL	0	0	1	8	4	32

*THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 102 (CONTINUED)

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA REGION IN THE UNITED STATES FOR 1974.*

REGIONS	<u>UNKNOWN</u>		<u>TOTAL</u>	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0
II	0	0	0	0
III	0	0	4	32
IV	1	8	1	8
V	0	0	0	0
VI	0	0	0	0
VII	0	0	0	0
VIII	0	0	0	0
IX	0	0	1	8
X	0	0	0	0
U.S. TOTAL	1	8	6	48

*THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 103

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA REGION IN THE UNITED STATES FOR 1975.*

REGIONS	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0	0	0
II	0	0	1	8	0	0
III	0	0	0	0	0	0
IV	0	0	0	0	0	0
V	0	0	0	0	0	0
VI	0	0	0	0	0	0
VII	0	0	0	0	0	0
VIII	0	0	0	0	0	0
IX	0	0	0	0	2	16
X	0	0	0	0	0	0
U.S. TOTAL	0	0	1	8	2	16

*THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 103 (CONTINUED)

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA REGION IN THE UNITED STATES FOR 1975.

REGIONS	<u>UNKNOWN</u>		<u>TOTAL</u>	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0
II	0	0	1	8
III	0	0	0	0
IV	0	0	0	0
V	0	0	0	0
VI	0	0	0	0
VII	0	0	0	0
VIII	0	0	0	0
IX	0	0	2	16
X	0	0	0	0
U.S. TOTAL	0	0	3	24

*THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 104

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA REGION IN THE UNITED STATES FOR 1976.

REGIONS	<u>OCCUPATIONAL</u>		<u>NON-OCCUPATIONAL</u>		<u>INTENTIONAL</u>	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	0	0	1	8
II	0	0	0	0	0	0
III	1	8	0	0	0	0
IV	1	8	1	8	1	8
V	0	0	0	0	0	0
VI	0	0	0	0	0	0
VII	0	0	0	0	0	0
VIII	0	0	0	0	0	0
IX	0	0	0	0	0	0
X	0	0	0	0	1	8
U.S. TOTAL	2	16	1	8	3	24

*THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL HOSPITAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 104 (CONTINUED)

OBSERVED AND ESTIMATED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY CAUSE OF EXPOSURE AND EPA REGION IN THE UNITED STATES FOR 1976.

REGIONS	<u>UNKNOWN</u>		<u>TOTAL</u>	
	OBSERVED	ESTIMATED	OBSERVED	ESTIMATED
I	0	0	1	8
II	0	0	0	0
III	0	0	1	8
IV	0	0	3	24
V	0	0	0	0
VI	0	0	0	0
VII	0	0	0	0
VIII	0	0	0	0
IX	0	0	1	8
X	0	0	0	0
U.S. TOTAL	0	0	6	48

*THE ESTIMATES WERE DEVELOPED FROM THE RATIO OF REGIONAL ADMISSIONS TO THE SAMPLE REGIONAL HOSPITAL ADMISSIONS.

TABLE 105
ESTIMATED NUMBERS AND RATES OF HOSPITAL ADMITTED PESTICIDE POISONINGS
FOR 1971-1976 WITH AVERAGES FOR 1971-1973 AND 1974-1976.

	ESTIMATED NUMBER	RATES
1971	2596	8.2
1972	2821	8.8
1973	2831	8.5
1974	2954	8.7
1975	3314	9.6
1976	3010	8.5
1971-1973	2749	8.5
1974-1976	3093	8.9

TABLE 106
ESTIMATED RATES OF HOSPITAL ADMITTED PESTICIDE POISONINGS
BY EPA REGION FOR 1971-1976.

EPA REGION	1971	1972	1973	1974	1975	1976	AVERAGES	
							1971-73	1974-76
I	2.4	2.4	4.4	1.3	3.9	3.4	3.1	2.9
II	1.6	2.4	2.2	4.3	3.8	6.4	2.1	4.8
III	6.9	10.2	6.1	5.4	4.1	3.9	7.7	4.5
IV	10.9	11.4	9.4	13.6	16.3	12.1	10.6	14.0
V	5.6	6.4	6.3	6.9	5.6	6.1	6.1	6.2
VI	12.8	11.0	12.2	11.8	11.1	12.2	12.0	11.7
VII	6.5	7.5	9.8	10.2	18.0	12.9	7.9	13.7
VIII	5.9	10.0	10.7	4.8	6.7	2.2	8.9	4.6
IX	17.1	15.3	15.5	13.0	15.0	12.2	16.0	13.4
X	7.4	8.8	13.5	7.2	8.6	8.5	9.9	8.1
U.S. TOTAL	8.2	8.8	8.5	8.7	9.6	8.5	8.5	8.9

TABLE 107
ESTIMATED RATE OF HOSPITALIZED PESTICIDE POISONINGS
BY TYPE OF EXPOSURE, 1971-1976.

TYPE OF EXPOSURE	1971	1972	1973	1974	1975	1976	AVERAGES	
							1971-73	1974-76
OCCUPATIONAL	2.5	1.9	2.5	2.0	2.8	1.9	2.3	2.2
NON- OCCUPATIONAL	4.1	5.4	4.3	4.8	5.1	5.1	4.6	5.0
INTENTIONAL	1.6	1.3	1.6	1.6	1.4	1.3	1.5	1.4

TABLE 108
U.S. TOTAL ESTIMATED RATE OF OCCUPATIONAL POISONINGS
BY OCCUPATION, 1971-1976.

	1971	1972	1973	1974	1975	1976	AVERAGES	
							1971-73	1974-76
PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	0.3	0.4	0.4	0.2	0.5	0.3	0.4	0.3
COMMERCIAL APPLICATOR	0.5	0.4	0.6	0.5	0.4	0.4	0.5	0.4
FARMER	0.4	0.5	0.7	0.7	0.8	0.6	0.5	0.7
AGRICULTURAL WORKER	0.3	0.3	0.2	0.2	0.4	0.4	0.3	0.3
SKILLER OR UNSKILLED LABORER	0.6	0.0	0.3	0.3	0.3	0.2	0.3	0.3
PROFESSIONAL OR SEMI-PROFESSIONAL	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
UNKNOWN OR NOT CLASSIFIED	0.2	0.2	0.3	0.0	0.4	0.1	0.2	0.2

TABLE 109
ESTIMATED YEARLY RATE OF OCCUPATIONAL POISONINGS
BY MAJOR PESTICIDE CLASS, 1971-1976.

	1971	1972	1973	1974	1975	1976	AVERAGES	
							1971-73	1974-76
ORGANOPHOSPHATES	1.8	1.4	1.7	1.0	0.8	0.9	1.6	0.9
CHLORINATED HYDRO-CARBON INSECTICIDES	0.1	0.2	0.3	0.1	0.1	0.0	0.2	0.1
CHLORINATED HYDRO-CARBON HERBICIDES, FUNGICIDES, ETC.	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0
CARBAMATES, AMIDES & RELATED COMPOUNDS	0.2	0.1	0.3	0.2	0.7	0.3	0.2	0.4
ARSENIC	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER	0.1	0.1	0.2	0.6	1.1	0.6	0.1	0.8

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APPENDICES

TABLE A-1
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976.

YEARS	CASES
1974	367
1975	415
1976	372
TOTAL	1154

TABLE A-2

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY REGION, 1974, 1975, AND 1976.

REGION	CASES		
	1974	1975	1976
I	3	8	8
II	19	17	29
III	24	19	19
IV	104	127	94
V	64	53	62
VI	54	50	57
VII	26	47	34
VIII	6	9	3
IX	57	72	54
X	10	13	12
TOTAL	367	415	372

TABLE B-1

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976.
EPA REGION I AND STATES.

REGION I	CASES		
	1974	1975	1976
MAINE	1	1	1
NEW HAMPSHIRE	0	0	1
VERMONT	0	2	0
MASSACHUSETTS	1	3	2
RHODE ISLAND	0	2	2
CONNECTICUT	1	0	2

TABLE B-2
 NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
 EPA REGION II AND STATES.

	CASES		
	1974	1975	1976
REGION II			
NEW YORK	9	8	12
NEW JERSEY	10	9	17

TABLE B-3

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION III AND STATES.

REGION III	CASES		
	1974	1975	1976
PENNSYLVANIA	9	8	17
DELAWARE	0	0	1
MARYLAND	2	3	4
DISTRICT OF COLUMBIA	2	0	0
VIRGINIA	9	7	4
WEST VIRGINIA	2	1	3

TABLE B-4
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION IV AND STATES.

REGION IV	CASES		
	1974	1975	1976
NORTH CAROLINA	14	21	19
SOUTH CAROLINA	6	12	9
GEORGIA	25	11	9
FLORIDA	22	16	24
KENTUCKY	8	16	7
TENNESSEE	20	30	9
ALABAMA	4	13	8
MISSISSIPPI	5	8	9

TABLE B-5

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION V AND STATES.

REGION V	CASES		
	1974	1975	1976
OHIO	12	12	6
INDIANA	3	6	3
ILLINOIS	24	16	33
MICHIGAN	9	6	8
WISCONSIN	5	5	8
MINNESOTA	11	8	4

TABLE B-6
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION VI AND STATES.

REGION VI	CASES		
	1974	1975	1976
ARKANSAS	7	14	9
LOUISIANA	9	3	3
OKLAHOMA	4	6	10
TEXAS	33	27	32
NEW MEXICO	1	0	3

TABLE B-7

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION VII AND STATES.

REGION VII	CASES		
	1974	1975	1976
IOWA	7	13	12
MISSOURI	9	9	7
NEBRASKA	4	10	3
KANSAS	6	15	12

TABLE B-8

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION VIII AND STATES.

REGION VIII	CASES		
	1974	1975	1976
NORTH DAKOTA	0	3	1
SOUTH DAKOTA	0	1	0
MONTANA	0	0	0
WYOMING	0	0	0
COLORADO	6	5	2
UTAH	0	0	0

TABLE B-9
NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION IX AND STATES.

REGION IX	CASES		
	1974	1975	1976
CALIFORNIA	48	70	48
ARIZONA	9	2	4
NEVADA	0	0	0
HAWAII	0	0	2

TABLE B-10

NUMBER OF OBSERVED CASES OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, AND 1976,
EPA REGION X AND STATES.

REGION X	CASES		
	1974	1975	1976
IDAHO	1	5	4
WASHINGTON	8	7	7
OREGON	1	1	1
ALASKA	0	0	0

TABLE C-1

NUMBER OF HOSPITALS AND HOSPITAL ADMISSIONS, EPA REGIONS, 1974, 1975, AND 1976.

Region	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1974	1975
I	272	33	1807083	1821301	227481	228829
II	423	52	3623104	3678892	436188	443926
III	488	63	3626618	3676657	475692	489657
IV	1060	133	5872152	6045880	751837	772461
V	1099	138	7267158	7397603	937017	954745
VI	916	112	3850312	3924915	460849	466914
VII	536	67	2124784	2185892	257569	262847
VIII	333	40	1079473	1114416	139150	151324
IX	664	83	3681901	3695522	435023	458972
X	259	33	1067696	1082870	135777	142677
U.S.	6050	754	34000281	34623948	4256583	4372352
						4451590

TABLE C-2
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION I AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1974	1975
Region I	272	33	1807083	1821301	227481	228829
Maine	51	6	177312	177105	30688	30002
New Hampshire	28	3	127810	125797	16202	16284
Vermont	18	2	76374	78945	5254	5280
Massachusetts	119	15	874739	880131	108904	109218
Rhode Island	15	2	126463	130693	22297	23476
Connecticut	41	5	424385	428630	44136	44569
						46343

TABLE C-3

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION II AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1974	1975
Region II	423	52	3623104	3678892	3722370	436188
New York	317	39	2626511	2655660	2679582	313446
New Jersey	106	13	996593	1023232	1042788	122742
						124204
						461243
						338826
						122417

TABLE C-4
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION III AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions					
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals			
			1974	1975	1976	1974	1975	1976
Region III	488	63	3626618	3676657	3791174	475692	489657	513855
Pennsylvania	236	30	1790646	1800102	1873922	217650	224361	237584
Delaware	9	1	73367	77571	78444	5557	5490	5363
Maryland	55	7	484523	493036	507855	64261	63697	64230
Washington D.C.	14	2	188509	186972	184653	16163	15338	14382
West Virginia	72	10	371301	385625	396225	87886	93197	94435
Virginia	102	13	718272	733351	750075	84175	87574	97861

TABLE C-5
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION IV AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1974	1975
Region IV	1060	133	5872152	6045880	6237860	751837
Kentucky	109	14	584846	607776	622873	80096
N. Carolina	137	17	822027	841804	866313	99969
Tennessee	129	16	774670	783995	819826	111953
S. Carolina	77	10	437951	442436	454076	58478
Georgia	157	20	824152	842185	872797	105867
Alabama	134	16	637356	654448	678938	69003
Mississippi	108	13	428983	438598	446301	48986
Florida	209	27	1362167	1434638	1476736	177485
						186158
						184829

TABLE C-6
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION V AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions					
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals			
			1974	1975	1974	1975	1976	1976
Region V	1099	138	7267158	7397603	7478776	937017	954745	984135
Michigan	214	27	1359530	1391601	1405121	176047	181234	185314
Wisconsin	144	18	752922	757700	758296	92575	94312	95036
Minnesota	172	21	692084	702280	717954	79927	78224	83755
Ohio	206	26	1704278	1740694	1773605	223184	223179	225272
Indiana	116	15	838571	848671	854283	106462	108878	109905
Illinois	247	31	1919773	1956657	1969517	258822	268918	284853

TABLE C-7
NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION VI AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions				
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals		
			1974	1975	1974	1975	1976
Region VI	916	112	3850312	3924915	4038683	460849	466914
Arkansas	93	11	383180	400213	413309	40391	40365
Oklahoma	130	16	472883	479458	483920	51821	53064
New Mexico	47	6	172105	176665	185217	22469	20821
Louisiana	140	16	667984	689276	695516	73885	79804
Texas	506	63	2154160	2179303	2260721	272283	272860
							282912

TABLE C-8

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION VII AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1974	1975
Region VII	536	67	2124784	2185892	2228884	257569
Iowa	136	17	538615	553070	565445	72800
Nebraska	101	12	286120	293108	301890	35402
Missouri	149	19	869072	896354	909115	101991
Kansas	150	19	430977	443360	452434	47376
						48010
						50056

TABLE C-9

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION VIII AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1975	1976
Region VIII	333	40	1079473	1114416	139150	152874
North Dakota	57	7	132987	138756	11439	14679
Montana	63	8	139310	143342	16173	14072
South Dakota	66	8	134361	139651	17808	19610
Wyoming	28	3	64598	65949	13828	13462
Colorado	84	10	429620	443689	50006	59699
Utah	35	4	178597	183029	29896	31352

TABLE C-10

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION IX AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1974	1975
Region IX	664	83	3681901	3695522	435023	458972
Arizona	72	9	345087	342962	34795	35324
Nevada	21	3	93406	95571	7306	7479
California	551	69	3145812	3154826	387576	410973
Hawaii	20	2	97596	102163	5346	5196
					100757	5479

TABLE C-11

NUMBER OF HOSPITALS AND TOTAL HOSPITAL ADMISSIONS, EPA REGION X AND STATES, 1974, 1975, AND 1976.

	Number of Hospitals		Total Admissions			
	All Hospitals	Sampled Hospitals	All Hospitals		Sampled Hospitals	
			1974	1975	1974	1975
Region X	259	33	1067696	1082870	1101321	135777
Alaska	24	3	52152	52887	53965	7267
Idaho	48	6	124979	128177	131277	16884
Washington	111	14	545159	551017	553610	70794
Oregon	76	10	345406	350789	362469	40832
						40960
						40030

TABLE D-1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE AND REGION, 1974, 1975,
AND 1976.

REGION	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>
	1974	1975	1976	1974	1975	1976	1974	1975	1976	
I	1	1	1	1	4	4	1	3	3	0
II	3	2	2	14	12	25	2	3	2	0
III	4	4	3	7	12	11	13	3	3	2
IV	29	49	21	58	57	59	11	19	11	11
V	5	8	10	48	35	44	11	9	8	1
VI	17	21	25	27	22	25	7	6	6	5
VII	7	19	11	17	24	16	2	3	6	2
VIII	1	2	0	2	5	2	3	2	1	0
IX	12	14	7	29	44	34	16	13	13	1
X	4	5	3	4	6	5	1	2	4	1
TOTAL	83	125	83	207	221	225	67	63	57	23

TABLE E-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION I AND STATES,
1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION I	1	1	1	1	4	4	1	3	3	0	0	0
MAINE	1	0	1	0	1	0	0	0	0	0	0	0
NEW HAMPSHIRE	0	0	0	0	0	1	0	0	0	0	0	0
VERMONT	0	0	0	0	1	0	0	1	0	0	0	0
MASSACHUSETTS	0	1	0	0	1	1	1	1	1	0	0	0
RHODE ISLAND	0	0	0	0	1	0	0	1	2	0	0	0
CONNECTICUT	0	0	0	1	0	2	0	0	0	0	0	0

TABLE E-2
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION II AND STATES,
1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION II	3	2	2	14	12	25	2	3	2	0	0	0
NEW YORK	1	1	1	6	5	10	2	2	1	0	0	0
NEW JERSEY	2	1	1	8	7	15	0	1	1	0	0	0

TABLE E-3

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION III AND STATES, 1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION III	4	4	3	7	12	11	13	3	3	0	0	2
PENNSYLVANIA	1	1	1	5	7	5	3	0	1	0	0	0
DELAWARE	0	0	1	0	0	0	0	0	0	0	0	0
MARYLAND	1	0	0	0	2	3	1	1	1	0	0	0
DISTRICT OF CO	1	0	0	0	0	0	1	0	0	0	0	0
VIRGINIA	1	3	0	1	2	2	7	2	0	0	0	2
WEST VIRGINIA	0	0	1	1	1	1	1	0	1	0	0	0

TABLE E-4

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION IV AND STATES, 1974, 1975, AND 1976

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION IV	29	49	21	58	57	59	11	19	11	6	2	3
NORTH CAROLINA	4	5	6	6	12	10	1	3	1	3	1	2
SOUTH CAROLINA	0	8	3	6	4	5	0	0	1	0	0	0
GEORGIA	7	3	2	13	6	5	5	1	2	0	1	0
FLORIDA	7	3	2	13	9	20	2	4	2	0	0	0
KENTUCKY	0	4	2	8	10	5	0	2	0	0	0	0
TENNESSEE	6	22	1	10	4	5	2	4	2	2	0	1
ALABAMA	3	3	2	0	7	5	0	3	1	1	0	0
MISSISSIPPI	2	1	3	2	5	4	1	2	2	0	0	0

TABLE E-5

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION V AND STATES,
1974, 1975, AND 1976

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION V	5	8	10	48	35	44	11	9	8	0	1	0
OHIO	2	4	2	8	8	4	2	0	0	0	0	0
INDIANA	0	1	0	3	4	3	0	1	0	0	0	0
ILLINOIS	1	0	4	21	14	24	2	2	5	0	0	0
MICHIGAN	0	0	1	6	4	6	3	2	1	0	0	0
WISCONSIN	1	0	2	3	2	5	1	3	1	0	0	0
MINNESOTA	1	3	1	7	3	2	3	1	1	0	1	0

TABLE E-6

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VI AND STATES, 1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION VI	17	21	25	27	22	25	7	6	6	3	1	1
ARKANSAS	3	6	4	3	7	5	0	1	0	1	0	0
LOUISIANA	1	0	1	8	2	2	0	1	0	0	0	0
OKLAHOMA	1	2	2	1	3	4	1	0	3	1	1	1
TEXAS	12	13	17	15	10	12	5	4	3	1	0	0
NEW MEXICO	0	0	1	0	0	2	1	0	0	0	0	0

TABLE E-7

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VII AND STATES, 1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION VII	7	19	11	17	24	16	2	3	6	0	1	1
IOWA	1	6	6	6	5	4	0	2	2	0	0	0
MISSOURI	4	4	0	5	4	5	0	0	1	0	1	1
NEBRASKA	1	7	3	2	3	0	1	0	0	0	0	0
KANSAS	1	2	2	4	12	7	1	1	3	0	0	0

TABLE E-8

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION VIII AND STATES, 1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION VIII	1	2	0	2	5	2	3	2	1	0	0	0
NORTH DAKOTA	0	1	0	0	2	1	0	0	0	0	0	0
SOUTH DAKOTA	0	0	0	0	1	0	0	0	0	0	0	0
MONTANA	0	0	0	0	0	0	0	0	0	0	0	0
WYOMING	0	0	0	0	0	0	0	0	0	0	0	0
COLORADO	0	1	0	2	2	1	3	2	1	0	0	0
UTAH	0	0	0	0	0	0	0	0	0	0	0	0

TABLE E-9
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION IX AND STATES,
1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION IX	12	14	7	29	44	34	16	13	13	0	1	0
CALIFORNIA	3	13	4	29	43	32	16	13	12	0	1	0
ARIZONA	9	1	2	0	1	2	0	0	0	0	0	0
NEVADA	0	0	0	0	0	0	0	0	0	0	0	0
HAWAII	0	0	1	0	0	0	0	0	1	0	0	0

TABLE E-10

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY CAUSE OF EXPOSURE, EPA REGION X AND STATES, 1974, 1975, AND 1976.

REGION & STATE	<u>OCCUPATIONAL</u>			<u>NON-OCCUPATIONAL</u>			<u>INTENTIONAL</u>			<u>UNCLASSIFIED</u>		
	1974	1975	1976	1974	1975	1976	1974	1975	1976	1974	1975	1976
REGION X	4	5	3	4	6	5	1	2	4	1	0	0
IDAHO	1	1	1	0	3	1	0	1	2	0	0	0
WASHINGTON	3	4	2	3	2	3	1	1	2	1	0	0
OREGON	0	0	0	1	1	1	0	0	0	0	0	0
ALASKA	0	0	0	0	0	0	0	0	0	0	0	0

TABLE F-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1974.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	1	0
II	1	0	1	0
III	0	0	2	2
IV	0	3	15	3
V	0	0	3	1
VI	3	4	4	2
VII	2	1	2	1
VIII	0	0	0	1
IX	1	10	0	0
X	0	2	1	0
TOTAL	7	20	29	10

TABLE F-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1974.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	1
II	1	0	0	3
III	0	0	0	4
IV	7	1	0	29
V	1	0	0	5
VI	1	2	1	17
VII	1	0	0	7
VIII	0	0	0	1
IX	1	0	0	12
X	1	0	0	4
TOTAL	13	3	1	83

TABLE G-1

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	1	0
MAINE	0	0	1	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE G-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	1
MAINE	0	0	0	1
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE G-2

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	1	0	1	0
NEW YORK	0	0	1	0
NEW JERSEY	1	0	0	0

TABLE G-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	1	0	0	3
NEW YORK	0	0	0	1
NEW JERSEY	1	0	0	2

TABLE G-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	0	0	2	2
PENNSYLVANIA	0	0	1	0
DELAWARE	0	0	0	0
MARYLAND	0	0	0	1
DISTRICT OF COLUMBIA	0	0	1	0
VIRGINIA	0	0	0	1
WEST VIRGINIA	0	0	0	0

TABLE G-3 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	0	0	0	4
PENNSYLVANIA	0	0	0	1
DELAWARE	0	0	0	0
MARYLAND	0	0	0	1
DISTRICT OF COLUMBIA	0	0	0	1
VIRGINIA	0	0	0	1
WEST VIRGINIA	0	0	0	0

TABLE G-4

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	0	3	15	3
NORTH CAROLINA	0	1	2	1
SOUTH CAROLINA	0	0	0	0
GEORGIA	0	2	3	2
FLORIDA	0	0	0	0
KENTUCKY	0	0	0	0
TENNESSEE	0	0	5	0
ALABAMA	0	0	3	0
MISSISSIPPI	0	0	2	0

TABLE G-4 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
REGION IV	7	1	0	29
NORTH CAROLINA	0	0	0	4
SOUTH CAROLINA	0	0	0	0
GEORGIA	0	0	0	7
FLORIDA	6	1	0	7
KENTUCKY	0	0	0	0
TENNESSEE	1	0	0	6
ALABAMA	0	0	0	3
MISSISSIPPI	0	0	0	2

TABLE G-5
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
REGION V	OBSERVED	OBSERVED	OBSERVED	OBSERVED
OHIO	0	0	3	1
INDIANA	0	0	2	0
ILLINOIS	0	0	0	0
MICHIGAN	0	0	0	1
WISCONSIN	0	0	0	0
MINNESOTA	0	0	1	0
		0	0	0

TABLE G-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	1	0	0	5
OHIO	0	0	0	2
INDIANA	0	0	0	0
ILLINOIS	0	0	0	1
MICHIGAN	0	0	0	0
WISCONSIN	0	0	0	1
MINNESOTA	1	0	0	1

TABLE G-6

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	3	4	4	2
ARKANSAS	3	0	0	0
LOUISIANA	0	0	1	0
OKLAHOMA	0	0	0	0
TEXAS	0	4	3	2
NEW MEXICO	0	0	0	0

TABLE G-6 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	1	2	1	17
ARKANSAS	0	0	0	3
LOUISIANA	6	0	0	1
OKLAHOMA	1	0	0	1
TEXAS	0	2	1	12
NEW MEXICO	0	0	0	0

TABLE G-7
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	2	1	2	1
IOWA	0	0	1	0
MISSOURI	2	1	1	0
NEBRASKA	0	0	0	1
KANSAS	0	0	0	0

TABLE G-7 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	0	0	0	6
IOWA	0	0	0	1
MISSOURI	0	0	0	4
NEBRASKA	0	0	0	1
KANSAS	0	0	0	0

TABLE G-8

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	1
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	1
UTAH	0	0	0	0

TABLE G-8 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	1
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	1
UTAH	0	0	0	0

TABLE G-9

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	1	10	0	0
CALIFORNIA	0	2	0	0
ARIZONA	1	8	0	0
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE G-9 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	1	0	0	12
CALIFORNIA	1	0	0	3
ARIZONA	0	0	0	9
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE G-10

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	2	1	0
IDAHO	0	1	0	0
WASHINGTON	0	1	1	0
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE G-10 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1974.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	1	0	0	4
IDAHO	0	0	0	1
WASHINGTON	1	0	0	3
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE H-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1975.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	0	1
II	0	0	1	0
III	2	0	1	1
IV	2	4	16	8
V	0	1	6	1
VI	5	4	4	2
VII	7	2	5	2
VIII	0	0	0	1
IX	5	2	1	3
X	0	2	1	0
TOTAL	21	15	35	19

TABLE H-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1975.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	1
II	0	1	0	2
III	0	0	0	4
IV	6	0	13	49
V	0	0	0	8
VI	3	0	3	21
VII	1	1	1	19
VIII	1	0	0	2
IX	1	0	2	14
X	2	0	0	5
TOTAL	14	2	19	125

TABLE 1-1

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGION AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	1
MAINE	0	0	0	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	1
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE I-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION 1	0	0	0	1
MAINE	0	0	0	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	1
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE I-2

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	0	1	0
NEW YORK	0	0	1	0
NEW JERSEY	0	0	0	0

TABLE I-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	1	0	2
NEW YORK	0	0	0	1
NEW JERSEY	0	1	0	1

TABLE I-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	2	0	1	1
PENNSYLVANIA	1	0	0	0
DELAWARE	0	0	0	0
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	1	0	1	1
WEST VIRGINIA	0	0	0	0

TABLE I-3 (CONTINUED)
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION III	0	0	0	4
PENNSYLVANIA	0	0	0	1
DELAWARE	0	0	0	0
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	0	0	0	3
WEST VIRGINIA	0	0	0	0

TABLE I-4

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	2	4	16	8
NORTH CAROLINA	0	0	3	2
SOUTH CAROLINA	1	1	2	2
GEORGIA	0	0	1	1
FLORIDA	0	1	0	0
KENTUCKY	0	0	3	0
TENNESSEE	1	1	5	2
ALABAMA	0	0	2	1
MISSISSIPPI	0	1	0	0

TABLE I-4 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	6	0	13	49
NORTH CAROLINA	0	0	0	5
SOUTH CAROLINA	1	0	1	8
GEORGIA	1	0	0	3
FLORIDA	2	0	0	3
KENTUCKY	1	0	0	4
TENNESSEE	1	0	12	22
ALABAMA	0	0	0	3
MISSISSIPPI	0	0	0	1

TABLE I-5

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	0	1	6	1
OHIO	0	0	4	0
INDIANA	0	0	1	0
ILLINOIS	0	0	0	0
MICHIGAN	0	0	0	0
WISCONSIN	0	0	0	0
MINNESOTA	0	1	1	1

TABLE I-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	0	0	0	8
OHIO	0	0	0	4
INDIANA	0	0	0	1
ILLINOIS	0	0	0	0
MICHIGAN	0	0	0	0
WISCONSIN	0	0	0	0
MINNESOTA	0	0	0	3

TABLE I-6
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMERS	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI				
ARKANSAS	5	4	4	2
LOUISIANA	3	1	1	0
OKLAHOMA	0	0	0	0
TEXAS	0	0	1	0
NEW MEXICO	2	3	2	2
	0	0	0	0

TABLE I-6 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	3	0	3	21
ARKANSAS	0	0	1	6
LOUISIANA	0	0	0	0
OKLAHOMA	1	0	0	2
TEXAS	2	0	2	13
NEW MEXICO	0	0	0	0

TABLE I-7

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	7	2	5	2
IOWA	0	0	4	1
MISSOURI	2	1	1	0
NEBRASKA	5	0	0	1
KANSAS	0	1	0	0

TABLE I-7 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	1	1	1	19
IOWA	1	0	0	6
MISSOURI	0	0	0	4
NEBRASKA	0	1	0	7
KANSAS	0	0	1	2

TABLE I-8
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	1
NORTH DAKOTA	0	0	0	1
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	0
UTAH	0	0	0	0

TABLE I-8 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	1	0	0	2
NORTH DAKOTA	0	0	0	1
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	1	0	0	1
UTAH	0	0	0	0

TABLE I-9

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	5	2	1	3
CALIFORNIA	5	2	1	3
ARIZONA	0	0	0	0
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE I-9 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI - PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	1	0	2	14
CALIFORNIA	1	0	1	13
ARIZONA	0	0	1	1
NEVADA	0	0	0	0
HAWAII	0	0	0	0

TABLE I-10

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1975.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	2	1	0
IDAHO	0	0	0	0
WASHINGTON	0	2	1	0
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE I-10(CONTINUED)
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1975.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	2	0	0	5
IDAHO	1	0	0	1
WASHINGTON	1	0	0	4
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE J
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE
UNITED STATES 1976.

REGION	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
I	0	0	1	0
II	1	0	1	0
III	1	0	0	1
IV	1	3	10	2
V	2	0	3	2
VI	2	9	5	7
VII	3	3	2	2
VIII	0	0	0	0
IX	3	3	0	1
X	0	0	2	1
TOTAL	13	18	24	16

TABLE J (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS, BY SELECTED OCCUPATION, AND EPA REGION IN THE UNITED STATES 1976.

REGION	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
I	0	0	0	1
II	0	0	0	2
III	0	0	1	3
IV	4	0	1	21
V	3	0	0	10
VI	1	1	0	25
VII	0	0	1	11
VIII	0	0	0	0
IX	0	0	0	7
X	0	0	0	3
TOTAL	8	1	3	83

TABLE K-1
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	1	0
MAINE	0	0	1	0
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE K-1 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION I	0	0	0	1
MAINE	0	0	0	1
NEW HAMPSHIRE	0	0	0	0
VERMONT	0	0	0	0
MASSACHUSETTS	0	0	0	0
RHODE ISLAND	0	0	0	0
CONNECTICUT	0	0	0	0

TABLE K-2

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	1	0	1	0
NEW YORK	0	0	1	0
NEW JERSEY	1	0	0	0

TABLE K-2 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION II	0	0	0	2
NEW YORK	0	0	0	1
NEW JERSEY	0	0	0	1

TABLE K-3

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
REGION III	1	0	0	1
PENNSYLVANIA	0	0	0	0
DELAWARE	0	0	0	1
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	0	0	0	0
WEST VIRGINIA	1	0	0	0

TABLE K-3 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
REGION III	0	0	1	3
PENNSYLVANIA	0	0	1	1
DELAWARE	0	0	0	1
MARYLAND	0	0	0	0
DISTRICT OF COLUMBIA	0	0	0	0
VIRGINIA	0	0	0	0
WEST VIRGINIA	0	0	0	1

TABLE K-4

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	1	3	10	2
NORTH CAROLINA	0	0	5	1
SOUTH CAROLINA	0	1	1	1
GEORGIA	0	0	2	0
FLORIDA	0	0	1	0
KENTUCKY	0	0	1	0
TENNESSEE	0	1	0	0
ALABAMA	1	0	0	0
MISSISSIPPI	0	1	0	0

TABLE K-4 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IV	4	0	1	21
NORTH CAROLINA	0	0	0	6
SOUTH CAROLINA	0	0	0	3
GEORGIA	0	0	0	2
FLORIDA	1	0	0	2
KENTUCKY	0	0	1	2
TENNESSEE	0	0	0	1
ALABAMA	1	0	0	2
MISSISSIPPI	2	0	0	3

TABLE K-5

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	2	0	3	2
OHIO	2	0	0	0
INDIANA	0	0	0	0
ILLINOIS	0	0	1	0
MICHIGAN	0	0	0	1
WISCONSIN	0	0	1	1
MINNESOTA	0	0	1	0

TABLE K-5 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION V	3	0	0	10
OHIO	0	0	0	2
INDIANA	0	0	0	0
ILLINOIS	3	0	0	4
MICHIGAN	0	0	0	1
WISCONSIN	0	0	0	2
MINNESOTA	0	0	0	1

TABLE K-6

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	2	9	5	7
ARKANSAS	2	1	0	1
LOUISIANA	0	0	0	1
OKLAHOMA	0	0	0	1
TEXAS	0	7	5	4
NEW MEXICO	0	1	0	0

TABLE K-6 (CONTINUED)
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI - PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VI	1	1	0	21
ARKANSAS	0	0	0	0
LOUISIANA	0	0	0	1
OKLAHOMA	0	1	0	2
TEXAS	1	0	0	17
NEW MEXICO	0	0	0	1

TABLE K-7

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	3	3	2	2
IOWA	0	2	1	2
MISSOURI	0	0	0	0
NEBRASKA	2	0	1	0
KANSAS	1	1	0	0

TABLE K-7 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI - PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VII	0	0	1	11
IOWA	0	0	1	6
MISSOURI	0	0	0	0
NEBRASKA	0	0	0	3
KANSAS	0	0	0	2

TABLE K-8

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	0
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	0
UTAH	0	0	0	0

TABLE K-8 (CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI - PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION VIII	0	0	0	0
NORTH DAKOTA	0	0	0	0
SOUTH DAKOTA	0	0	0	0
MONTANA	0	0	0	0
WYOMING	0	0	0	0
COLORADO	0	0	0	0
UTAH	0	0	0	0

TABLE K-9

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION IX	3	3	0	1
CALIFORNIA	3	1	0	0
ARIZONA	0	1	0	1
NEVADA	0	0	0	0
HAWAII	0	1	0	0

TABLE K-9 (CONTINUED)
OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS
AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
REGION IX	0	0	0	7
CALIFORNIA	0	0	0	4
ARIZONA	0	0	0	2
NEVADA	0	0	0	0
HAWAII	0	0	0	1

TABLE K-10

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	PESTICIDE FORMULATING PLANT OR PESTICIDE MANUFACTURING PLANT	COMMERCIAL APPLICATOR	FARMER	AGRICULTURAL WORKER
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	0	2	1
IDAHO	0	0	0	1
WASHINGTON	0	0	2	0
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE K-10(CONTINUED)

OBSERVED NUMBER OF HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY SELECTED OCCUPATION, AND EPA REGIONS AND STATES IN 1976.

	SKILLED OR UNSKILLED LABORER	PROFESSIONAL OR SEMI- PROFESSIONAL	UNKNOWN OR NOT CLASSIFIED	TOTAL
	OBSERVED	OBSERVED	OBSERVED	OBSERVED
REGION X	0	0	0	3
IDAHO	0	0	0	1
WASHINGTON	0	0	0	2
OREGON	0	0	0	0
ALASKA	0	0	0	0

TABLE L-1

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS IN 1974, 1975, AND 1976.

	1974	1975	1976
ORGANOPHOSPHATES	40	36	41
CHLORINATED HYDROCARBON INSECTICIDES	6	5	0
CHLORINATED HYDROCARBON HERBICIDES, FUNGICIDES, ETC.	1	2	0
CARBAMATES, AMIDES & RELATED COMPOUNDS	10	31	14
ARSENIC	0	1	1
OTHER	26	50	27
TOTAL	83	125	83

TABLE M-1

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS,
1974.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES, FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	1	0	0	0	0	0	1
II	0	0	0	2	0	1	3
III	3	0	0	1	0	0	4
IV	16	3	1	2	0	7	29
V	1	0	0	1	0	3	5
VI	7	2	0	3	0	5	17
VII	1	1	0	0	0	5	7
VIII	1	0	0	0	0	0	1
IX	9	0	0	0	0	3	12
X	1	0	0	1	0	2	4
TOTAL	40	6	1	10	0	26	83

TABLE M-2

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS,
1975.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES, FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	1	0	0	0	0	0	1
II	0	0	0	0	1	1	2
III	1	0	0	1	0	2	4
IV	12	1	0	14	0	22	49
V	2	0	1	2	0	3	8
VI	9	2	1	3	0	6	21
VII	5	2	0	5	0	7	19
VIII	1	0	0	0	0	1	2
IX	5	0	0	3	0	6	14
X	0	0	0	3	0	2	5
TOTAL	36	5	2	31	1	50	125

TABLE M-3

NUMBER OF OBSERVED HOSPITAL ADMITTED OCCUPATIONAL PESTICIDE POISONINGS BY MAJOR PESTICIDE CLASS, EPA REGIONS,
1976.

REGION	ORGANOPHOSPHATES	CHLORINATED HYDROCARBON INSECTICIDES	CHLORINATED HYDROCARBON HERBICIDES, FUNGICIDES, ETC.	CARBAMATES, AMIDES & RELATED COMPOUNDS	ARSENIC	OTHER	TOTAL
I	0	0	0	0	0	1	1
II	1	0	0	0	0	1	2
III	0	0	0	1	0	2	3
IV	7	0	0	5	1	8	21
V	6	0	0	1	0	3	10
VI	13	0	0	3	0	9	25
VII	8	0	0	3	0	0	11
VIII	0	0	0	0	0	0	0
IX	5	0	0	0	0	2	7
X	1	0	0	1	0	1	3
TOTAL	41	0	0	14	1	27	83

TABLE N-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES,
1974.

AGE GROUP	I	II	III	IV	V	VI	VII	VIII	IX	X	U.S. TOTAL
0-4	0	13	7	31	33	13	12	0	25	2	136
5-9	0	0	0	9	6	1	1	0	1	1	19
10-14	1	1	0	3	1	2	0	0	0	0	8
15-19	0	1	3	10	3	8	0	0	1	0	26
20-24	1	1	1	11	3	7	2	2	8	1	37
25-34	1	0	0	9	4	2	4	0	9	2	31
35-44	0	1	2	12	4	7	2	1	2	0	31
45-54	0	2	5	11	1	5	1	1	7	1	34
55-64	0	0	0	4	4	4	3	0	1	2	18
65 +	0	0	6	4	5	5	1	2	3	1	27
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
U.S. TOTAL	3	19	24	104	64	54	26	6	57	10	367

TABLE N-2
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES,
1975.

AGE GROUP	I	II	III	IV	V	VI	VII	VIII	IX	X	U.S. TOTAL
0-4	2	10	9	36	28	18	9	2	35	4	153
5-9	0	0	0	3	2	0	2	1	0	0	8
10-14	0	2	1	5	0	0	0	0	1	2	11
15-19	1	1	0	15	3	1	7	0	2	0	30
20-24	1	0	1	10	6	6	10	0	6	1	41
25-34	0	2	2	13	6	9	4	1	8	3	48
35-44	2	0	1	12	1	6	4	1	4	0	31
45-54	1	1	1	12	4	1	3	0	4	3	30
55-64	0	10	2	10	2	6	4	1	5	0	30
65 +	0	1	2	11	1	3	4	3	7	0	32
UNKNOWN	1	0	0	0	0	0	0	0	0	0	1
U.S. TOTAL	8	17	19	127	53	50	47	9	72	13	415

TABLE N-3

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS BY AGE GROUP, AND EPA REGION IN THE UNITED STATES, 1976.

AGE GROUP	I	II	III	IV	V	VI	VII	VIII	IX	X	U.S. TOTAL
0-4	2	23	9	38	31	10	10	0	26	3	152
5-9	0	1	0	5	1	3	0	0	0	0	10
10-14	0	0	0	2	2	0	1	0	0	0	5
15-19	1	2	1	5	0	8	2	1	3	1	24
20-24	1	0	1	3	4	4	1	1	8	3	26
25-34	2	1	0	12	11	9	5	0	10	2	52
35-44	0	1	5	11	7	6	6	0	2	0	38
45-54	0	0	2	9	2	9	2	0	3	0	27
55-64	1	1	0	5	1	3	3	0	0	10	14
65 +	1	0	1	4	3	5	4	1	2	3	24
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0
U.S. TOTAL	8	29	19	94	62	57	34	3	54	12	372

TABLE 0-1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE IN THE UNITED STATES
IN 1974, 1975, AND 1976.

YEAR	OBSERVED NUMBER
1974	127
1975	147
1976	148
TOTAL	422

TABLE P-1
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGIONS IN
1974, 1975, AND 1976

EPA REGION	1974 OBSERVED NUMBER	1975 OBSERVED NUMBER	1976 OBSERVED NUMBER
I	0	2	1
II	13	10	23
III	6	9	9
IV	29	34	35
V	30	27	31
VI	12	17	10
VII	12	8	10
VIII	0	2	0
IX	23	34	26
X	2	4	3

TABLE Q-1

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION AND STATES,
1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION I	0	2	1
MAINE	0	0	0
NEW HAMPSHIRE	0	0	0
VERMONT	0	1	0
MASSACHUSETTS	0	1	0
RHODE ISLAND	0	0	0
CONNECTICUT	0	0	1

TABLE Q-2
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION II AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION II	13	10	23
NEW YORK	6	3	9
NEW JERSEY	7	7	14

TABLE Q-3

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION III AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION III	6	9	9
PENNSYLVANIA	4	5	5
DELAWARE	0	0	0
MARYLAND	0	2	2
DISTRICT OF COLUMBIA	1	0	0
VIRGINIA	1	1	1
WEST VIRGINIA	0	1	1

TABLE Q-4
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION IV AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION IV	29	34	35
NORTH CAROLINA	3	8	5
SOUTH CAROLINA	4	3	4
GEORGIA	1	2	2
FLORIDA	7	7	12
KENTUCKY	6	5	5
TENNESSEE	7	2	3
ALABAMA	0	3	3
MISSISSIPPI	1	4	1

TABLE Q-5
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION V AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION V	30	27	31
OHIO	6	5	2
INDIANA	3	4	3
ILLINOIS	12	12	20
MICHIGAN	5	4	3
WISCONSIN	2	0	1
MINNESOTA	2	2	2

TABLE Q-6

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VI AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION VI	12	17	10
ARKANSAS	1	6	5
LOUISIANA	6	2	1
OKLAHOMA	0	2	1
TEXAS	5	7	2
NEW MEXICO	0	0	1

TABLE Q-7

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VII AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION VII	12	8	10
IOWA	3	1	4
MISSOURI	5	2	2
NEBRASKA	0	0	0
KANSAS	4	5	4

TABLE Q-8

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION VIII AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION VIII	0	2	0
NORTH DAKOTA	0	2	0
SOUTH DAKOTA	0	0	0
MONTANA	0	0	0
WYOMING	0	0	0
COLORADO	0	0	0
UTAH	0	0	0

TABLE Q-9
OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION IX AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION IX	23	34	26
CALIFORNIA	23	33	24
ARIZONA	0	1	2
NEVADA	0	0	0
HAWAII	0	0	0

TABLE Q-10

OBSERVED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS FOR CHILDREN 0-4 YEARS OF AGE, EPA REGION X AND STATES, 1974, 1975, AND 1976.

REGION AND STATE	1974	1975	1976
REGION X	2	4	3
IDAHO	0	2	1
WASHINGTON	1	1	2
OREGON	1	1	0
ALASKA	0	0	0

TABLE R-1
TOTAL OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS BY AGE GROUP
AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	UNKNOWN INSECTICIDE	UNKNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0-4	0	0	0	1	0	0	0	1
5-9	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	2	0	0	0	0	0	0	2
35-44	0	0	1	0	0	1	0	2
45-54	3	0	0	0	0	0	1	4
55-64	0	0	0	0	0	0	0	0
65 +	1	2	1	1	1	0	0	6
U.S. TOTAL	6	2	2	2	1	1	1	15

TABLE R-2
OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE OCCUPATIONAL GROUP, BY AGE GROUP
AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	UNKNOWN INSECTICIDE	UNKNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0-4	0	0	0	0	0	0	0	0
5-9	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	0	0	0	0	0	0	0	0
35-44	0	0	1	0	0	0	0	1
45-54	0	0	0	0	0	0	1	1
55-64	0	0	0	0	0	0	0	0
65 +	0	0	0	0	0	0	0	0
U.S. TOTAL	0	0	1	0	0	0	1	2

TABLE R-3

OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE NON-OCCUPATIONAL GROUP, BY AGE GROUP AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	UNKNOWN INSECTICIDE	UNKNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0-4	0	0	0	1	0	0	0	1
5-9	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	1	0	0	0	0	0	0	1
35-44	0	0	0	0	0	0	0	0
45-54	0	0	0	0	0	0	0	0
55-64	0	0	0	0	0	0	0	0
65 +	0	0	0	0	1	0	0	1
U.S. TOTAL	1	0	0	1	1	0	0	3

TABLE R-4
OBSERVED NUMBERS OF HOSPITAL ADMITTED PESTICIDE POISONING DEATHS IN THE INTENTIONAL GROUP, BY AGE GROUP
AND CHEMICAL CLASS IN THE UNITED STATES FOR 1974 - 1976.

AGE GROUP	ARSENIC	CHLORINATED HYDROCARBON INSECTICIDE	UNKNOWN INSECTICIDE	UNKNOWN RODENTICIDE	LEAD AND ARSENIC	BOTANICAL	UNKNOWN PESTICIDE	U.S. TOTAL
0-4	0	0	0	0	0	0	0	0
5-9	0	0	0	0	0	0	0	0
10-14	0	0	0	0	0	0	0	0
15-19	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0
25-34	1	0	0	0	0	0	0	1
35-44	0	0	0	0	0	1	0	1
45-54	2	0	0	0	0	0	0	2
55-64	0	0	0	0	0	0	0	0
65 +	1	2	1	1	0	0	0	5
U.S. TOTAL	4	2	1	1	0	1	0	9

Table S-1
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION I AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION I	14.34	19.23	18.61
MAINE	10.06	9.83	9.85
NEW HAMPSHIRE	0	0	5.33
VERMONT	0	10.09	0
MASSACHUSETTS	7.43	11.67	8.52
RHODE ISLAND	0	0	.10
CONNECTICUT	7.03	5.91	12.18

Table S-2
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION II AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION II	42.49	46.04	74.09
NEW YORK	29.69	23.25	27.92
NEW JERSEY	30.40	39.74	68.63

Table S-3

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION III AND STATES.

REGION AND STATE	1974	1975	1976
REGION III	34.45	34.75	38.31
PENNSYLVANIA	24.44	15.87	28.79
DELAWARE	0	0	0
MARYLAND	13.43	16.02	13.43
DISTRICT OF COLUMBIA	3.45	0	0
VIRGINIA	17.61	26.03	16.14
WEST VIRGINIA	9.33	4.61	14.05

Table S-4
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION IV AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION IV	143.25	171.66	85.55
NORTH CAROLINA	19.97	55.40	45.72
SOUTH CAROLINA	17.58	49.86	30.10
GEORGIA	98.17	24.95	26.45
FLORIDA	59.93	32.66	39.32
KENTUCKY	27.78	30.17	23.01
TENNESSEE	72.89	142.33	20.18
ALABAMA	15.60	27.39	26.71
MISSISSIPPI	16.01	17.51	20.64

Table S-5
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION V AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION V	92.14	63.72	77.91
OHIO	28.62	31.87	17.04
INDIANA	15.20	26.05	28.40
ILLINOIS	47.84	40.49	59.51
MICHIGAN	45.15	15.52	28.40
WISCONSIN	22.14	10.16	18.05
MINNESOTA	51.20	19.56	17.30

Table S-6

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION VI AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION VI	100.00	94.25	80.96
ARKANSAS	53.11	60.40	33.55
LOUISIANA	39.71	20.13	18.55
OKLAHOMA	12.09	19.54	34.11
TEXAS	73.44	66.69	61.24
NEW MEXICO	7.88	0.00	13.06

Table S-7

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION VII AND STATES.

REGION AND STATE	STANDARD ERROR	
	1974	1975
REGION VII	41.49	69.60
IOWA	22.22	30.31
MISSOURI	29.96	29.72
NEBRASKA	9.26	49.58
KANSAS	15.63	24.16
		43.26
		25.05
		19.76
		19.71
		21.57

Table S-8
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION VIII AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION VIII	26.49	24.04	7.70
NORTH DAKOTA	0.00	10.80	5.41
SOUTH DAKOTA	0.00	3.86	0.00
MONTANA	0.00	0.00	0.00
WYOMING	0.00	0.00	0.00
COLORADO	26.49	21.13	5.49
UTAH	0.00	0.00	0.00

Table S-9
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION IX AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION IX	92.28	88.92	71.09
CALIFORNIA	87.39	88.63	70.49
ARIZONA	29.65	7.19	9.12
NEVADA	0.00	0.00	0.00
HAWAII	0.00	0.00	1.05

Table S-10
STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
BY EPA REGION X AND STATES.

REGION AND STATE	STANDARD ERROR		
	1974	1975	1976
REGION X	23.17	35.94	22.57
IDAHO	3.64	16.60	9.90
WASHINGTON	22.36	31.00	16.41
OREGON	4.85	7.44	7.48
ALASKA	0.00	0.00	0.00

Table S-11

STANDARD ERROR OF ESTIMATED NUMBER OF HOSPITAL ADMITTED PESTICIDE POISONINGS IN 1974, 1975, 1976
FOR THE UNITED STATES AND FOR EACH EPA REGION.

REGION	STANDARD ERROR		
	1974	1975	1976
I	14.34	19.23	18.61
II	42.49	46.04	74.09
III	34.45	34.75	38.31
IV	143.25	171.66	85.55
V	92.14	63.72	77.91
VI	100.00	94.25	80.96
VII	41.49	69.60	43.26
VIII	26.49	24.04	7.70
IX	92.28	88.92	71.09
X	23.17	35.94	22.57
U.S.	231.70	246.43	186.39

TABLE S-12

STANDARD ERROR OF ESTIMATED RATE OF HOSPITAL ADMITTED PESTICIDE POISONINGS (PER 100,000 ADMISSIONS)
IN 1974, 1975, 1976 FOR THE UNITED STATES AND FOR EACH EPA REGION.

REGION	STANDARD ERROR		
	1974	1975	1976
I	0.79	1.06	1.03
II	1.17	1.25	1.99
III	0.95	0.94	1.01
IV	2.44	2.84	1.37
V	1.27	0.86	1.04
VI	2.60	2.40	2.00
VII	1.95	3.18	1.94
VIII	2.45	2.16	0.69
IX	2.51	2.41	1.91
X	2.17	3.32	2.05
U.S.	0.68	0.71	0.53

APPENDIX T

**TRAINING MANUAL FOR
ACUTE HOSPITALIZED PESTICIDE POISONING
(Including Survey Form)**

Fort Collins, Colorado

July 13 & 14, 1977

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TRAINING SESSION
COMBINED HOSPITALIZED ACUTE PESTICIDE POISONING STUDY AND HUMAN MILK STUDY

July 13 and 14, 1977
Colorado State University
Fort Collins, Colorado

Wednesday, July 13, 1977

8:00 - 8:45	Overview and Introduction to the Acute Pesticide Poisoning Study and Milk Study, Dr. Eldon Savage
8:45 - 9:20	Class and Characteristics of Poisoning Agents, Dr. C. W. Miller
9:20 - 9:50	Study Design, Dr. Thomas Keefe
9:50 - 10:10	Break
10:10 - 11:00	Contacting the Hospital, Mr. Bill Wheeler
11:00 - 11:40	Role of the Hospital Administrator and Confidentiality, Mr. Roy Johnson
11:40 - 12:40	Lunch
12:40 - 1:20	Hospital Coding, Ms. Lori Plemmons, A.R.T.
1:20 - 1:50	Abstracting Medical Records, Mr. Gary Mihlan and Mr. Gary Norwood
1:50 - 2:40	Work Session
2:40 - 3:10	Contacting Participants, Milk Sample Collection, Packaging, Storage, Handling, Shipping, and Labelling, Ms. Sandy Ford
3:10 - 3:30	Break
3:30 - 4:00	Contacting Participants (Continued), Ms. Sandy Ford
4:00 - 4:30	Completion of Study Participant Form for Milk Samples, Ms. Betsy Goes
4:30	Adjourn

Thursday, July 14, 1977

8:30 - 9:30	Work Session - Completion of Study Participant Form for Milk Study, Ms. Betsy Goes
9:30 - 10:10	Sample Analysis for Human Milk, Mr. John Tessari
10:10 - 10:30	Break
10:30 - 11:10	Quality Control, Questions, Mr. Jerry Rench
11:10 - 11:40	Hospital Assignments
11:40 - 12:00	Session Summarization
12:00	Adjourn

Course Participants

Fred Applehans - Colorado
Victor Beat - Iowa
Bruce Bracken - Mississippi
John Buonaccorsi - Colorado
Sam Caldwell - South Carolina
David Dietel - Michigan
Sandra Ford - Colorado
Elizabeth Goes - Colorado
Thomas Goes - Colorado
Pete Hague - New Jersey
Don Hilden - Utah
Darlene Hoover - Texas
Roy Johnson (Hospital Administrator)
Dr. Thomas Keefe - Colorado
Gary Mihlan - Colorado
Dr. C. W. Miller - Colorado
Larry Mounce - Colorado
Dave Nash - Washington
Gary Norwood - Colorado
Adrian Oudbier - Michigan
Rose Parker - Records Librarian, A.R.T.
Lori Plemmons - Records Librarian, A.R.T.
Jerry Rench - Colorado
Dr. Eldon Savage - Colorado
Barbara Stevens - Colorado
Wataru Takahashi - Hawaii
Kim Taylor - Colorado
John Tessari - Colorado
Addison Truxton - Colorado
Mike Watson - South Carolina
Bill Wheeler - Colorado
Julie Yoder - Idaho

A STUDY OF HOSPITALIZED ACUTE PESTICIDE POISONINGS IN THE UNITED STATES 1974-1976

OBJECTIVE

The first study of hospitalized acute pesticide poisonings on a nationwide scale occurred in 1974 and covered the years 1971-1973. The objective of the first study was to develop nationwide incidence rates for hospitalized pesticide poisoning victims. The main objective of the current study, which covers the years 1974-1976 is to update the national incidence rates and to compare data from both studies for the presence of developing trends. An additional objective is to develop a pilot study to investigate the possibilities of examining emergency room records for information on non-admitted acute pesticide poisonings.

BACKGROUND

For a complete background, refer to the final report of the 1971-1973 study.

RATIONALE

In 1974, the Colorado Epidemiologic Pesticide Studies Center initiated and undertook, with the cooperation of the other Centers, a nationwide study of hospitalized acute pesticide poisoned victims. Medical records, for the years 1971-1973 were examined at randomly selected hospitals across the United States. Data on 1,072 poisoned cases was compiled, analyzed, and national incidence rates were computed.

The results of this study have generated enough interest in possible correlations and trends, that it was decided to undertake a second study using randomly selected general hospitals. Hospitalized pesticide poisoning cases

occurring in the years 1974-1976 will be surveyed and the results and incidence rates will be compared to those of the previous study.

However, as stated in the final report of the 1971-1973 study, the hospital study only applied to poisoning cases that were actually admitted to a hospital for treatment. The possibility existed that a good many milder cases of pesticide exposure occurred, but didn't warrant hospitalization. In order to make an estimate of the proportion of cases that are treated by a physician but not admitted for hospitalization, a pilot Hospital Emergency Room (ER) Study will be incorporated into the current study. The emergency room log books will be examined at approximately 50 hospitals, and information concerning ER treated pesticide victims will be abstracted by the field investigators. This information derived from the ER logbooks will be evaluated and a decision made as to whether to develop this pilot study into a more intensive, full-scale national ER study in the future.

PLAN OF STUDY

Population to be Sampled:

The population to be sampled is the approximately 7,000 general hospitals in the United States. A hospital is classified by the American Hospital Association as "general" if the majority of its admissions are general medical and surgery cases. From a list of general hospitals stratified by number of admissions, a sample will be selected according to the sampling scheme defined below. Each selected hospital will represent a potential cluster of cases, and this cluster will be examined to count the number of pesticide poisoning cases occurring within that cluster.

Selection of the Sample:

In order to increase the precision of the desired estimates, the general hospitals will be stratified by hospital size within each state. Since the estimate of the number of hospitalized acute pesticide poisonings is to be based on admission rates, the best criterion for stratification is the recorded number of admissions for the 1975 calendar year as reported by the American Hospital Association. For those hospitals where no admissions are reported, a ratio estimator was developed using number of admissions and number of beds from reporting hospitals. The stratification plan is shown in the following diagram:

State (e.g., Colorado)

Admission Rate

	Hospital 1
	.
	.
$\leq A_1/\text{yr.}$	Hospital N_1
.	Hospital 1
.	.
.	.
$\leq A_m/\text{yr}$	Hospital N_m

The hospitals in a given state were ranked according to admissions and then divided into k quantiles, where k is the number of hospitals to be selected. The k quantiles, which contain approximately the same number of hospitals, constitute the admissions strata. Within each of these strata one hospital was selected at random. Although the probability of obtaining a given sample under this plan is approximately equivalent to the probability of obtaining the sample using simple random sampling, this procedure insures that the distribution with respect to admission of the sample hospitals will be representative of the distribution of all hospitals in the use stratum.

Data Acquisition From Hospital Records:

Each selected hospital will be visited and patient records will be examined by field epidemiologists specifically trained to abstract the desired information. Complete information is desired on time-person-place relationships, pesticide involved, diagnosis, treatment, prognosis, and related circumstances of the pesticide incident. In order to obtain this information, the acute pesticide poisoning form used in the 1971-1973 study will again be used to abstract the medical records (Appendix A). The record reviews will be collected according to study protocol and forwarded to the Colorado Center for compilation.

Estimation of National Incidence Rates:

The methods to be used in estimating the national incidence rates of hospitalized pesticide poisonings will follow the format used in the 1971-1973 study. For a complete explanation of these methods, see the final report of the 1971-1973 study.

QUALITY CONTROL

A. Selection of hospitals to participate in study:

The hospitals will be randomly selected using random number lists. The selection will proceed under the supervision of a statistician affiliated with the Colorado Center. To insure that a true random selection occurs, the random number lists will be marked and all of the selected hospitals will be rechecked.

B. Selection of alternate hospitals:

In the event that a hospital refuses to cooperate or has closed down, an alternate hospital will be selected in its place. The field investigators will be given the name of a statistician to contact at the Colorado Center in the event that the selection of an alternate hospital will be required.

C. Training session at Colorado Epidemiologic Pesticide Studies Center:

Participants from all Centers and Projects in the U.S. will attend and be trained in the following procedures:

1. Contacting hospital administrators and obtaining cooperation.
2. Abstracting medical records to the study form.
3. Instruction in completion of cover sheet for each hospital.
 - a. Master cover sheet (Figure I) will be completed by the field investigator for each hospital. It will include a variety of information to be used in logging in the returned forms and quality control of the study.
4. Instruction in return of completed forms and cover sheets to the Colorado Center.

D. Logging-in procedure at the Colorado Center and quality check of received data:

One individual at the Colorado Center will be responsible for logging in completed forms and cover sheets for each hospital. This same individual will recontact selected hospitals by phone at the time the forms arrive from each hospital. The hospital administrator and records librarian will be asked key questions to insure the quality of the field investigation. The records librarian at each hospital will be asked to verify a percentage of the medical records abstracted by the field investigator, and the completed forms will be compared to the actual medical records to check for transfer errors.

Figure 1

HOSPITALIZED ACUTE PESTICIDE POISONING STUDY, 1974-1976

Hospital _____

Address: _____

City: _____

State: _____

Telephone No.: Area Code _____

Administrator: _____

Records Librarian: _____

Clerk Who Pulled Records: _____
(if not same as above)

Date Contacted: _____

Date Records Reviewed: _____

Number of Cases Recorded: _____

Name and Address of Alternate, if Alternate was Taken for the Original Section:

Hospital: _____

Address: _____

City: _____

State: _____

Field Representative: _____

Project/Center: _____

Status: (Circle appropriate number)

Original Hospital

Completed - 1

Refused - 2

Closed - 3

Alternate Hospital

Completed - 4

Refused - 5

Closed - 6

E. Transfer of data from abstracted forms to keypunch forms:

One individual from the Colorado Center will be placed in charge of transferring the data to the keypunch forms. This person will be thoroughly trained in the procedure by a consulting statistician from Colorado State University. A percentage of the keypunch forms will be randomly selected and rechecked by the statistician as a means of evaluating the accuracy of the data transfer to the keypunch forms.

CHEMICALS ASSOAIATED WITH POISONING CASES

Hospital Study 1971-73

Arsenic Trioxide
Calcium Arsenate
Calcium Cyanide
Carbon Tetrachloride
Copper
Copper Oleate
Cyanide
Disodium Arsenate
Fenten Hydroxide
Lead Arsenate

Mercury
Mercuric Chloride
Methyl Mercury
MSMA
Prolin
Sodium Arsenate
Sodium Dimethyl Arsenate
Thallium Sulfate
Zinc Sulfate

Aldrin
Aluminum Phosphate
Azodrin
BHC
Bidrin
Black Flag Products
Baygon
Carbamic Acid
Carbaryl
Carbofuran

Lindane
Malic Hydrazide
Malathion
Methyl Parathion
Mevinophos
Methoxychlor
META
Naphthalene
Nicotine
Paraquat

Captan
Chlordane
CoRal
Chloropicrin
Chloropropane
Demeton
DEET
DDVP
Diazinon
Dimethoate

Picloram
Parathion
Paradichlorobenzene
PCP
Phenylphosphorothiolate
Phorate
Pyrethrum
Phosphorus
Ronnel
Rotenone

Di-Syston
Demeton
Dimecron
Dieldrin
DDT
Diphonate
DBCP
Endosulfan
Fumarin
Gardona

Strychnine
Sodium Floride
TEPP
Temik
Thiram
Trichlorfon
Trifluralin
Toxaphene
Vikane
Warfarin

Guthion
Heptachlor
Imidin
Kepone
Lannate

2,4-D
2,4-D Amide
2,4,5-T
1080

TYPES OF PESTICIDES

Pesticides are generally classed according to their intended use.

These include:

acaricides (miticides)	molluscicides
insecticides	repellents
nematocides	algaeicides
fungicides	rodenticides
herbicides	plant growth regulators
	attractants

FORMS IN WHICH PESTICIDES ARE MADE

aerosols	granules and pellets
baits	solutions.
dusts	wettable powders
emulsifiable concentrates	

POISONING AGENTS

There are many ways one may classify poisoning agents. One convenient scheme is as follows:

agricultural	medicinal
household	natural
industrial	

CONTACTING THE HOSPITAL

Initial contact with the hospital is vital to the success of the study. As a result, the first few minutes predicate success or failure to obtain permission to review hospital records. Each field investigator will have to develop a personal method for approaching the hospital administrator.

A successful method of approaching a hospital administrator has been through an introductory letter requesting cooperation of the hospital. An example of such an introductory letter used in the 1971-73 Acute Hospitalized Pesticide Poisoning Study is included in this manual. The letter will give the investigator an introduction and yet not give the hospital the opportunity to refuse by letter. Most people, including hospital administrators, will find it more difficult to refuse the investigator personally than to refuse by mail.

Most often the first person you will contact in the hospital is the hospital administrator's secretary. This is frequently the major obstacle between you and the administrator, since part of the secretary's job is to screen persons wanting to see the administrator. Here a confident, polite, and insistent attitude will usually yield either admittance to the office or an appointment with the administrator. Occasionally the secretary may handle the matter, by-passing the administrator, by referring you directly to the medical records department. In this case, the secretary will either call the medical records department or direct you to the office. In the latter case, use the reference by stating to the medical records director that you have been referred "by the office" of the administrator.

In all cases, either with the administrator or the director of medical records, emphasize the confidentiality of the data obtained and freely explain all phases of the study. It is vital that each field investigator be thoroughly acquainted with all phases of the study. Hospital code numbers for HICDA and SNODO are available to the investigator so that a minimum amount of time will be needed from the medical records department. Records should be abstracted in whatever place or time is convenient for hospital personnel. Additionally, the records director should be assured that any abstracted information obtained by the investigator can be reviewed by hospital personnel prior to leaving the hospital.



College of Veterinary Medicine
and Biomedical Sciences
Institute of Rural Environmental Health
Colorado Epidemiologic Pesticide Studies Center
Spruce Hall

Colorado State University
Fort Collins, Colorado
80523

Dear Sir:

This letter is to request your permission for a medical records survey of pesticide poisonings during 1971, 1972, and 1973. The purpose is to collect data for a nationwide study of the epidemiology of this condition. Diagnostic codes appropriate to these conditions are 983.9, 985.0, 985.1, 985.9, 987.1, 987.4, 987.9, 989.1, 989.2, and 989.3 of either the ICDA-8 or HICDA.

Thomas Conway, H. William Wheeler, Fred Applehans, or Lawrence Mounce, Field Epidemiologists for the Epidemiologic Pesticide Studies Center at Fort Collins, Colorado will be in your area and will call on you and your Chief Medical Records Librarian to further explain the study.

Thank you for your time and consideration.

Sincerely,

Eldon P. Savage, Ph.D., Director
Colorado Epidemiologic
Pesticide Studies Center

EPS:bb



COMMISSION ON PROFESSIONAL AND HOSPITAL ACTIVITIES, 1973,
HOSPITAL ADAPTATION OF ICDA - 2nd EDITION, ANN ARBOR, MICHIGAN

- 983 Toxic effect of corrosive aromatics, acids and caustic alkalis
 - 983.9 Caustic Numbers
- 985 Toxic effect of other metals chiefly nonmedicinal in source
 - 985.0 Mercury and its compounds
 - 985.1 Arsenic and its compounds
 - 985.9 Other
- 987 Toxic effect of other gases, fumes or vapors
 - 987.4 Freons: methyl bromide, methyl chloride
- 989 Toxic effect of other substances chiefly nonmedicinal as to source
 - 989.0 Cyanid (Gas)
 - 989.1 Strychnine
 - 989.2 Chlorinated pesticides
 - 989.3 Other pesticides

STANDARD NOMENCLATURE OF DISEASES AND OPERATIONS,
6th EDITION (SNODO)

32 Due to metals, metalloids, and their compounds, inorganic and organic - exclusive of 312, 313, 314

321 Arsenic, selenium, tellurium, and their compounds

3211 Arsenic trioxide, arsenites, and other inorganic trivalent arsenic compounds

3212 Arsenates and other inorganic pentavalent arsenic compounds

3213 Arsine and other organic compounds with trivalent arsenic

32131 Arsine

32134 Chlorovinylchloroarsine (lewisite)

32136 Diphenylaminochloroarsine (adamsite)

3214 Organic compounds with pentavalent arsenic; e.g., sodium cacodylate, sodium arsanilate, carbasone, carbasone oxide, and thiocarbasone

32143 Tryparasamide

3215 Selenium and its compounds

3216 Tellurium and its compounds

3243 Mercury and its compounds

32431 Inorganic mercuric salts

32432 Inorganic mercurous salts

32433 Alkyl mercury salts

32434 Phenyl mercury salts and esters

32435 Organic mercurial diuretics

32436 Organic mercurial antiseptics

32437 Organic mercury compounds-not elsewhere classified

36 Economic poisons and chemical warfare agents

361 to 362 Insecticides and poisons against other invertebrate pests (miticides, hematocides, etc.). See also 363, 364, and 365.

3611 to 3612 Halogenated hydrocarbon insecticides

36111 Aldrin

36112 Benzene hexachloride

36113 Chlordane

36114 Dichlorodiphenyl trichloroethane

36116 Heptachlor

36121 Lindane

36123 Toxaphene

3613 Halogenated hydrocarbon insecticides containing organic oxygen

36134 Dieldrin

36135 Methoxychlor

3614 Halogenated hydrocarbon insecticides (miticides) containing organic sulfur (with or without oxygen)

36141 Aramite

36145 Ovex (Ovotran)

- 3615 to 3616 Organic phosphorous insecticides
 - 36158 Malathion
 - 36162 Para-oxon
 - 36163 Parathion
- 3617 Insecticides from botanical sources (and related synthetic substances)
 - 36171 Nicotine and its salts
 - 36173 Pyrethrum
 - 36174 Rotenone
- 3619 Miscellaneous insecticides
 - Organic thiocyanates. See also: fumigants (363), repellents (364), petroleum oils (3311), dinitrophenol derivatives (3655)
- 364 Repellents
 - 3641 Simple esters and diesters except benzyl benzoate (3355)
 - 36416 Dimethyl phthalate
 - 3642 Amides
 - 36421 Diethyl toluamide
 - 3643 Glycols and glycol ethers
 - 36433 Ethyl hexanediol
 - 3644 Miscellaneous repellents
 - 36441 Butopyronoxyl
- 365 Herbicides (weed killers, defoliants, desiccants, soil sterilants) and plant growth regulators
 - 3651 Chlorophenol and chlorophenoxy derivatives
 - 36517 Pentachlorophenol
 - 3652 Chloralkyl compounds
 - 36521 Trichloroacetic acid and sodium salts (TCA)
 - 3653 Derivatives of urea
 - 36531 Monuron
 - 36532 Diuron
 - 36533 Fenuron
 - 3654 Carbamates and other amides-exclusive of 3653
 - 36541 Isopropyl-N-phenyl carbamate (IPC)
 - 36545 Ammonium sulfamate
 - 3655 Dinitro alkyl phenols except 33716 dinitrophenol
 - 36551 Dinitro-o-cresol (DNC)
 - 3656 Inorganic and metallo-organic compounds
 - For specific classification, see 31 and 32
 - 3657 Miscellaneous except allyl alcohol (36372), acrolein (3333), potassium cyanate (3175)
 - 36571 Aminotriazole
 - 36572 Triazines
- 366 Fungicides
 - 3661 General
 - For specific classification, see 31 and 32
 - 3662 Dithiocarbamates and related fungicides
 - 36621 Nabam
 - 36622 Ferbam
 - 36623 Maneb
 - 36626 Thiram

- 3663 Quinones
 - 36631 Dichlone
 - 36632 Chloranil
- 3664 Derivatives of phenol- exclusive of 3663, pentachloro-phenol (36517), hexachlorophene (34401), salicylic acid (34374)
 - 36643 Dichlorophene
 - 36645 o-Phenylphenol
 - 36646 Tri- and tetrachlorophenol
- 3665 Heterocyclic nitrogen compounds
 - 36652 Captan
 - 36653 Cycloheximide
 - 36656 Glyodin
- 367 Rodenticides and other vertebrate poisons
 - 3671 Inhibitors of prothrombin formation except bishydroxy-coumarin (35213)
 - 36711 Warfarin
 - 36712 Pivalyl indandione
 - 3672 Inorganic poisons
 - For specific classification, see 31 and 32
 - 3673 Poisons of botanical origin except rotenone (36174)
 - 36731 Strychnine and its salts
 - 36732 Red squill
 - 36733 Ricin
 - 3674 Miscellaneous
 - 36741 A-Naphthylthiourea
 - 36742 Sodium fluoracetate
 - 36743 Castrix

INSTRUCTIONS FOR THE COMPLETION OF THE
ACUTE PESTICIDE POISONING SURVEY FORM

The field investigators shall be responsible for the collection of complete and accurate data in order that the survey form may be coded properly. Certain sections on the form are to be completed only by the "coding" personnel at the Colorado Center, while data for other sections will be entered by the field investigators. The specific duties of the field investigators are outlined below.

Card Code 1:

1. Entries 1 through 32 will be completed by Colorado Center coding personnel only. DO NOT write anything in these spaces, except if an emergency room hospital is being investigated. In this case, please mark (X), column 32 after E.R.
2. Field investigator - each field investigator will be assigned a two digit code number by the Colorado Center. This number must be placed in the entry lines (33-34) at the time of form completion.
3. Date of visit - the field investigator is to enter the date when the hospital was first contacted in person. The date is to be entered in spaces 36-41 as month/day/year, two digits for each, so that, for example, July 5, 1977, is entered as 07/05/77.
4. The person doing the actual data transfer (data retrieval) is to sign on line entitled "Data retrieved by . . ."
5. If a hospital staff member retrieved the data, then circle 1 Yes; if not, then circle 2 No.
6. Complete the space provided for the hospital's name and address before leaving the hospital.
7. Hospital record number - the field investigator is to enter the hospital record number on the line provided. DO NOT write it in the coding spaces. Be sure to write in the complete record number as it appears in the patient's medical record, including all letters, numbers, dashes, etc. If in doubt as to what is the record number, please ask the librarian to assist you.
8. Admission date and discharge date - these dates are to be

entered in the appropriate space as stated above in number 3.

9. Admission time - the time of admission is to be entered in spaces 66-69 in the twenty-four hour scale, i.e., 3:30 P.M. would be entered as 15:30 and 2:20 A.M. as 02:20.
10. If the patient was transferred to the hospital from another hospital, then circle 1 Yes; if not, then circle 2 No.
11. Write out the patient's specific occupation as it appears on the hospital record.
12. Write in name of attending physician.
13. Enter patient's birthdate (digit form), race, first and last initials, address (City and State), and circle the appropriate sex. For address, just record the City and State. For race, please use one of the following designations:
 - (a) Caucasian
 - (b) Negro
 - (c) Oriental
 - (d) American Indian
 - (e) Mexican American
 - (f) Other (Specify)
 - (g) Unknown.

Card Code 2:

1. Date of poisoning - enter date of poisoning in digit form as stated in number 3.
2. Time of poisoning - the time of poisoning is to be entered in the twenty-four hour scale.
3. Place of poisoning - circle the appropriate response and specify "other".
4. Causative agent - list the name of the agent responsible for the poisoning as stated in the hospital record.
5. Pesticide code - DO NOT write in this space. Code will be assigned by personnel at the Colorado Center.
6. Other pesticides involved - circle 1 yes, if another pesticide was involved in the poisoning, and specify the name of the agent in space provided; if none, then circle 2 No. If unknown, circle 3 Unknown.
7. Other chemical involved - circle 1 Yes, if another chemical was involved in the poisoning, and specify the compound in

space provided; if none, then circle 2 No. If unknown, circle 3 Unknown.

8. Route of exposure - circle the appropriate response(s).
9. Type of formulation - circle the appropriate response.
10. Type of exposure - circle the appropriate response.
11. Diagnosis - write out the diagnosis as written in the hospital record and enter the assigned ICDA code number in the corresponding spaces. If more than one final diagnosis, record all diagnoses and ICDA codes.
12. Circumstances of exposure - please summarize as completely and accurately as possible the circumstances surrounding the poisoning episode.
13. Laboratory tests - place an "X" in the space preceding the test done, enter date, laboratory results, and name of laboratory. DO NOT write in entry lines 63, 65, and 67. Other is meant to include other lab tests used to diagnose a pesticide exposure and does not include routine blood counts, blood chemistries, and urinalysis.
14. Treatment - place an "X" in the appropriate entry line for each of the drugs administered to the patient. Please specify any drugs given other than those listed.
15. Prognosis - place an "X" in the appropriate entry line, and denote any comments concerning the condition of the patient at time of discharge or death (i.e., autopsy report).
16. Write in the total number of symptoms circled from Card Code 3 in spaces 78 and 79.

Card Code 3:

Symptoms - please circle numbers to all corresponding symptoms or signs experienced by the poisoning victim as they appear in the patient's medical record. Specify other symptoms which are not listed.

NOTE: If data is not available or is unknown for some of the questions, DO NOT write "Unknown" or "Not Available" in the coding spaces; rather, make a notation below or next to the appropriate question.

ACUTE PESTICIDE POISONING SURVEY FORM

Form ID 1 Card Code 1 State Code 9 City Code 11
 Former Participating Hospital 14 Response Code 15 Hospital Code No. 16
 AMAID Number 21 E.R. 32

Hospital Data		Patient Data	
Field investigator	<u>33</u>	Hosp. record number	<u>44</u>
Date of visit	<u>36</u> / /	Admission date	<u>54</u> / /
		Admission time	<u>61</u> :
Data retrieved by (name)		Discharge date	<u>66</u> / /
		Transfer case:	
Retrieved by hosp. pers.	<u>42</u>	<u>1</u> Yes <u>2</u> No	<u>73</u>
Name of hospital		Occup.	<u>75</u>
Address		Attending physician	
City		Birthdate	__ / __ / __ Sex M F
State		Race	Initials
Zip Code		Address: City	
		State	

Pesticide Poisoning History			
Card code	<u>2</u> / <u>7</u>	Routes of exposure	
Date of poisoning	<u>9</u> / /	<u>35</u> Oral <u>36</u> Dermal	<u>35</u> <u>36</u>
Time of poisoning	<u>16</u> :	<u>37</u> Resp. <u>38</u> Unknown	<u>37</u> <u>38</u>
Place of poisoning	<u>21</u>	Type of formulation:	
<u>1</u> Home <u>2</u> Work <u>3</u> Other		<u>0</u> Unk <u>5</u> W.P.	<u>40</u>
Specify Other		<u>1</u> Gas <u>6</u> Oil	
Causative agent		<u>2</u> Dust <u>7</u> Aerosol	
Pesticide code -	<u>23</u>	<u>3</u> Gran <u>8</u> Liquid	
Other pesticides involved	<u>31</u>	<u>4</u> E.C. <u>9</u> Other	
<u>1</u> Yes <u>2</u> No <u>3</u> Unknown		Type of exposure:	
Specify		<u>1</u> Occupational	<u>42</u>
Other chemicals involved	<u>33</u>	<u>2</u> Nonoccupational	
<u>1</u> Yes <u>2</u> No <u>3</u> Unknown		<u>3</u> Intentional	
Specify			

(Over)

Diagnoses

ICDA Codes

_____	46
_____	50
_____	54
_____	58

Circumstances of Exposure

Laboratory Tests

Test	Date	Results	Lab			
ChE	____/____/____	____	____			
62 Residue Analysis	____/____/____	63	____			
64 Other	____/____/____	65	____			
66	____/____/____	67	____			
Treatment:	Atropine	2-PAM	Phenobarb.	Pentobarb.	CaGluconate	BAL
	Other	Specify	70	71	72	73
Prognosis:	Live	Death	Autopsy	Condition		
	74	75	76	77		

Comments:Total Number Symptoms Circled

78

Symptoms - Card Code

3

- | | | | |
|---------------------------|-------------------------|------------------------|---------------------------|
| 11 Abdominal pain, cramps | 26 Earache | 41 Loss of hearing | 55 Tightness in chest |
| 12 Anorexia | 27 Epistaxis | 42 Loss of vision | 56 Tingling extremities |
| 13 Blurred vision | 28 Fainting | 43 Malaise | 57 Tinnitus |
| 14 Chills | 29 Fatigue | 44 Nasal stuffiness | 58 Tremor, fasciculations |
| 15 Coma | 30 Fever | 45 Nausea | 59 Vertigo |
| 16 Confusion | 31 Gas | 46 Numbness | 60 Vomiting |
| 17 Constricted pupils | 32 Headache | 47 Palpitations | 61 Weakness |
| 18 Convulsions | 33 Hyperirritability | 48 Pain on urination | 62 Wheezing |
| 19 Cough | 34 Increased salivation | 49 Rhinitis | 63 Other |
| 20 Cyanosis | 35 Increased sweating | 50 Shortness of breath | 64 Other |
| 21 Depression | 36 Increased tearing | 51 Sinus pain | 65 Other |
| 22 Dermatitis | 37 Insomnia | 52 Skin flushing | 66 Other |
| 23 Diarrhea | 38 Jaundice | 53 Sore throat | 67 Other |
| 24 Dizziness | 39 Joint swelling | 54 Spitting of blood | 68 Other |
| 25 Dyspnea | 40 Leg pain, cramps | | |

REMINDER: Please check form for completeness.